

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 1/7/2020 8:16:18 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: Biogenic CO2 Briefing Paper
Attachments: Proposed Biogenic CO2 Rule Briefing Ex. 5 Deliberative Process (DP)

Vera-

Attached is the final briefing paper for tomorrow's

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 11/20/2019 10:04:06 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]
CC: Ashley, Jackie [Ashley.Jackie@epa.gov]
Subject: RE: Biogenic CO2 w signatures 11.18.19.pdf

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Wednesday, November 20, 2019 2:21 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: FW: Biogenic CO2 w signatures 11.18.19.pdf

Ex. 5 Deliberative Process (DP)

<https://www.fischer.senate.gov/public/index.cfm/news?ID=639D065A-25C4-4B17-8AB3-A9F671E7B0B6>

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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Message

From: Ashley, Jackie [Ashley.Jackie@epa.gov]
Sent: 11/20/2019 7:12:58 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: RE: Biogenic CO2 w signatures 11.18.19.pdf

Thanks for the heads up, Vera. Looks like Sen. Fischer put out a statement about it, as well.

<https://www.fischer.senate.gov/public/index.cfm/news?ID=639D065A-25C4-4B17-8AB3-A9F671E7B0B6>

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Wednesday, November 20, 2019 2:02 PM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: FW: Biogenic CO2 w signatures 11.18.19.pdf

FYI -

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Steller, John <Steller.John@epa.gov>
Sent: Wednesday, November 20, 2019 11:44 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Cc: Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: Biogenic CO2 w signatures 11.18.19.pdf

Ex. 5 Deliberative Process (DP)

-John

From: Lewis, Josh [Lewis.Josh@epa.gov]
Sent: 10/30/2019 9:08:35 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]
CC: Santiago, Juan [Santiago.Juan@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Re: UPDATED: draft of Agenda for Thursday's Enviro call (11:30 am)

Ex. 5 Deliberative Process (DP)

On Oct 30, 2019, at 2:39 PM, Mathias, Scott <Mathias.Scott@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Lewis, Josh <Lewis.Josh@epa.gov>
Sent: Wednesday, October 30, 2019 11:48 AM
To: Mathias, Scott <Mathias.Scott@epa.gov>
Cc: Santiago, Juan <Santiago.Juan@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: Re: UPDATED: draft of Agenda for Thursday's Enviro call (11:30 am)

Thanks Scott.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

On Oct 30, 2019, at 11:35 AM, Mathias, Scott <Mathias.Scott@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 |
919.541.5310

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From: Santiago, Juan <Santiago.Juan@epa.gov>
Sent: Wednesday, October 30, 2019 11:28 AM
To: Lewis, Josh <Lewis.Josh@epa.gov>
Cc: Mathias, Scott <Mathias.Scott@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: UPDATED: draft of Agenda for Thursday's Enviro call (11:30 am)

Ex. 5 Deliberative Process (DP)

From: Lewis, Josh <Lewis.Josh@epa.gov>
Sent: Wednesday, October 30, 2019 11:26 AM

Ex. 5 Deliberative Process (DP)

Subject: UPDATED: draft of Agenda for Thursday's Enviro call (11:30 am)

Updated agenda below (new items/info in red, reflecting additional items I received from Clean Air Task Force).

Ex. 5 Deliberative Process (DP) Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

- How does EPA plan to comply with the D.C. Circuit decisions in the CSAPR Update and Close-Out Rule cases?
- * Can EPA provide details about any rulemaking efforts underway that would expand or clarify the types of biomass—particularly woody biomass—that EPA intends to treat as “carbon neutral” and does EPA have an expected timeline for these efforts?*

Ex. 5 Deliberative Process (DP)

- Does the title of the Ambient Air Policy at OMB (Ambient Air Policy for Air Quality Analyses in Prevention of Significant Deterioration Permitting) indicate that the new ambient air exclusion would only apply in the context of PSD? Would EPA have different interpretations of ambient air in different contexts?

- What is the process going to be for EPA guidance going forward (e.g. for ambient air)?
 - Will EPA open a docket?
 - Will EPA be issuing a public response to major concerns raised in comments (as under Executive Order 13891)?
- Does EPA have a timeline for finalizing the NSR reforms [I'm assuming this is for existing power plants]?
- * Is OAQPS handling the biomass aspect of the NSR reform effort? If so, any substantive or logistical details would be helpful.*

Ex. 5 Deliberative Process (DP)

- Is there an RIA or any new analysis/discussion of costs and benefits with the final MATS rule?
- Does EPA have a timeline for finalizing the carbon standards for new power plants?

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

- Any update on Characterizing PM_{2.5}-related Benefits at low concentrations?

Ex. 5 Deliberative Process (DP)

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 11/14/2019 8:05:32 PM
To: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Long, Pam [Long.Pam@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]
Subject: FW: Idsal Briefing Paper
Attachments: Final Idsal Status Update 11-18-19.docx

Importance: High

Here is the paper for the Anne briefing

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, November 14, 2019 2:54 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Idsal Briefing Paper
Importance: High

Attached is the revised briefing paper
Sarah

Ex. 5 Deliberative Process (DP)

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 9/16/2019 1:10:32 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: Biomass Briefing Document
Attachments: Idsal Briefing 9-18-19- edited.docx

Vera-

Attached is the briefing document that

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 9/12/2019 5:52:14 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: Biomass Briefing Paper Draft
Attachments: Idsal Briefing 9-18-19.docx

Here is the first draft of the paper for next weeks briefing. As I mentioned in comments on the document, I've sent e-

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Sent: 9/12/2019 4:57:36 PM
To: Brachtl, Megan [Brachtl.Megan@epa.gov]; Ling, Michael [Ling.Michael@epa.gov]; Rao, Raj [Rao.Raj@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]; Santiago, Juan [Santiago.Juan@epa.gov]
CC: Long, Pam [Long.Pam@epa.gov]
Subject: ACTION: 1/1 entries for monday, 9/16 (due 9/13)
Attachments: One on One 9-9-19.docx

Ex. 5 Deliberative Process (DP)

This week's 1/1 along with feedback is attached.

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

Message

From: Long, Pam [Long.Pam@epa.gov]
Sent: 10/2/2019 5:17:08 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Massey, Lana [massey.lana@epa.gov]
Subject: RE: FYI - FW: Biogenic CO2 Briefing Paper

Thanks Vera.

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Wednesday, October 02, 2019 12:44 PM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Massey, Lana <massey.lana@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: FYI - FW: Biogenic CO2 Briefing Paper

Just keeping you in the loop.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Wednesday, October 02, 2019 12:37 PM
To: Smith, Darcie <Smith.Darcie@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Subject: Biogenic CO2 Briefing Paper

Darcie-

Attached is the biomass briefing received from Peter during our discussion

Ex. 5 Deliberative Process (DP)

I know you mentioned Ex. 5 Deliberative Process (DP) provide a copy to Anne when she is here tomorrow.
once Anne

Ex. 5 Deliberative Process (DP)

Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Smith, Darcie [Smith.Darcie@epa.gov]
Sent: 10/2/2019 4:55:56 PM
To: Baker, Sarah [baker.sarah@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]
Subject: RE: Biogenic CO2 Briefing Paper

Thank you Sarah. I will let you know.

Darcie Smith
U.S. EPA, OAQPS
919.541.2076
smith.darcie@epa.gov

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Wednesday, October 02, 2019 12:37 PM
To: Smith, Darcie <Smith.Darcie@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Subject: Biogenic CO2 Briefing Paper

Darcie-

Attached is the biomass briefing document

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) to provide a copy to Anne when she is here tomorrow.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 10/17/2019 4:12:53 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: RE: dates regarding Tim Hunt

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Thursday, October 17, 2019 10:48 AM
To: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: dates regarding Tim Hunt

Hi Yvonne, thanks for trying but for OAQPS, that timeframe conflicts

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>
Sent: Thursday, October 17, 2019 10:39 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: dates regarding Tim Hunt

Looking at calendars it appears that October 31 (Halloween) is the best date for the majority at either 1:00 – 2:00 OR 2:00 – 3:00. Please let me know if you have a preference or if you are not available. Thanks.

Thank you,

Yvonne W. Johnson
Special Assistant to the Director

Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonne@epa.gov

From: Hunt, Tim <Tim_Hunt@afandpa.org>
Sent: Thursday, October 17, 2019 10:24 AM
To: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting

Yvonne, I hate to do this but a conflict came up for some of the group on the morning of November 1. Do any of the other times earlier that week work? And given our groups being based here in DC, hopefully we can do it again at headquarters with a video link to OAQPS. Thanks for being understanding,

Timothy Hunt
Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

From: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>
Sent: Wednesday, October 16, 2019 11:35 AM
To: Hunt, Tim <Tim_Hunt@afandpa.org>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting

We would like to propose November 1, 10-11. I am assuming this would be a phone meeting. Please confirm. Also, if you could provide us with an agenda for the call and if there will be any written materials you would like us to review or discuss could you provide at least 48 hours in advance. Thank you.

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonne@epa.gov

From: Hunt, Tim <Tim_Hunt@afandpa.org>
Sent: Friday, October 11, 2019 2:59 PM
To: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>

Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>

Subject: RE: voicemail PSD meeting

Importance: High

Yvonne,

I wanted to get back to you on possible dates for a meeting on the PSD biomass proposal. I think we will need an hour given some of the new material we want to review/discuss (to be provided shortly). The timeframes that work for key participants from AF&PA, AWC and NAFO are:

- Oct 17 11 to 1 PM
- Oct 30 1 to 2:30
- Oct 31 12 to 3:30
- Nov 1 10 to 12.

Since one of the dates is next week, I wanted to let you know as soon as possible. Let me know if you need more information. It will be many of the same people that met with EPA staff on September 4th in DC.

Thanks,

Timothy Hunt

Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Sent: Tuesday, October 8, 2019 4:53 PM

To: Hunt, Tim <Tim_Hunt@afandpa.org>

Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>

Subject: voicemail

Hi Tim – thanks for your voicemail. It sounds like you are interested in scheduling a meeting. If so, please coordinate with Yvonne. We would recommend such a meeting include the usual contacts (including the attorneys from EPA). If you want to send us some dates/times we can see about availability.

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 10/17/2019 4:08:49 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]
CC: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Subject: RE: voicemail PSD meeting

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Thursday, October 17, 2019 10:29 AM
To: Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: Fwd: voicemail PSD meeting

Hi - **Ex. 5 Deliberative Process (DP)** Do either of you have availability? I don't have to be there. **Ex. 5 Deliberative Process (DP)** Otherwise I'll tell him to look at the next week.

Vera

Vera Kornylak
Acting Associate Director
Air Quality Policy Division
OAQPS
919-541-4067
kornylak.vera@epa.gov

Begin forwarded message:

From: "Hunt, Tim" <Tim_Hunt@afandpa.org>
Date: October 17, 2019 at 10:23:57 AM EDT
To: "Johnson, Yvonne W" <Johnson.Yvonnew@epa.gov>
Cc: "Kornylak, Vera S." <Kornylak.Vera@epa.gov>, "Ohrel, Sara" <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting

Yvonne, I hate to do this but a conflict came up for some of the group on the morning of November 1. Do any of the other times earlier that week work? And given our groups being based here in DC, hopefully we can do it again at headquarters with a video link to OAQPS. Thanks for being understanding,

Timothy Hunt
Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588

Email: thunt@awc.org or Tim_Hunt@afandpa.org

From: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Sent: Wednesday, October 16, 2019 11:35 AM
To: Hunt, Tim <Tim_Hunt@afandpa.org>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting

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Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Hunt, Tim <Tim_Hunt@afandpa.org>
Sent: Friday, October 11, 2019 2:59 PM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting
Importance: High

Yvonne,

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- Oct 30 1 to 2:30
- Oct 31 12 to 3:30
- Nov 1 10 to 12.

Since one of the dates is next week, I wanted to let you know as soon as possible. Let me know if you need more information. It will be many of the same people that met with EPA staff on September 4th in DC.

Thanks,

Timothy Hunt

Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Tuesday, October 8, 2019 4:53 PM
To: Hunt, Tim <Tim_Hunt@afandpa.org>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: voicemail

Hi Tim – thanks for your voicemail. It sounds like you are interested in scheduling a meeting. If so, please coordinate with Yvonne. We would recommend such a meeting include the usual contacts (including the attorneys from EPA). If you want to send us some dates/times we can see about availability.

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

This message, including attachments, contains information that may be deliberative and confidential, and may be protected by attorney work-product, attorney-client or other applicable privileges. Further, this message, including attachments, may be exempt from disclosure by the U.S. EPA under applicable law. This message, including attachments, is intended to be conveyed only to the named recipient(s). If you received this message in error, or if you are not the intended recipient, please notify the sender listed above and delete the message from your system immediately. The unauthorized use, dissemination, distribution or reproduction of this message, including attachments, by unintended recipients is prohibited and may be unlawful.

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 10/17/2019 2:30:40 PM
To: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: voicemail PSD meeting

Ex. 5 Deliberative Process (DP)

From: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Sent: Thursday, October 17, 2019 10:29 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: voicemail PSD meeting

Ex. 5 Deliberative Process (DP)

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Kornylak, Vera S.
Sent: Thursday, October 17, 2019 10:29 AM
To: Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: Fwd: voicemail PSD meeting

Hi - **Ex. 5 Deliberative Process (DP)** Do either of you have availability? I don't have to be there **Ex. 5 Deliberative Process (DP)** Otherwise I'll tell him to look at the next week.

Vera

Vera Kornylak
Acting Associate Director
Air Quality Policy Division
OAQPS
919-541-4067
kornylak.vera@epa.gov

Begin forwarded message:

From: "Hunt, Tim" <Tim_Hunt@afandpa.org>
Date: October 17, 2019 at 10:23:57 AM EDT

To: "Johnson, Yvonne W" <Johnson.Yvonnew@epa.gov>
Cc: "Kornylak, Vera S." <Kornylak.Vera@epa.gov>, "Ohrel, Sara" <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting

Yvonne, I hate to do this but a conflict came up for some of the group on the morning of November 1. Do any of the other times earlier that week work? And given our groups being based here in DC, hopefully we can do it again at headquarters with a video link to OAQPS. Thanks for being understanding,

Timothy Hunt
Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

From: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Sent: Wednesday, October 16, 2019 11:35 AM
To: Hunt, Tim <Tim_Hunt@afandpa.org>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting

We would like to propose November 1, 10-11. I am assuming this would be a phone meeting. Please confirm. Also, if you could provide us with an agenda for the call and if there will be any written materials you would like us to review or discuss could you provide at least 48 hours in advance. Thank you.

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Hunt, Tim <Tim_Hunt@afandpa.org>
Sent: Friday, October 11, 2019 2:59 PM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: RE: voicemail PSD meeting
Importance: High

Yvonne,

I wanted to get back to you on possible dates for a meeting on the PSD biomass proposal. I think we will need an hour given some of the new material we want to review/discuss (to be

provided shortly). The timeframes that work for key participants from AF&PA, AWC and NAFO are:

- Oct 17 11 to 1 PM
- Oct 30 1 to 2:30
- Oct 31 12 to 3:30
- Nov 1 10 to 12.

Since one of the dates is next week, I wanted to let you know as soon as possible. Let me know if you need more information. It will be many of the same people that met with EPA staff on September 4th in DC.

Thanks,

Timothy Hunt

Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Tuesday, October 8, 2019 4:53 PM
To: Hunt, Tim <Tim_Hunt@afandpa.org>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: voicemail

Hi Tim – thanks for your voicemail. It sounds like you are interested in scheduling a meeting. If so, please coordinate with Yvonne. We would recommend such a meeting include the usual contacts (including the attorneys from EPA). If you want to send us some dates/times we can see about availability.

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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Message

From: Mathias, Scott [Mathias.Scott@epa.gov]
Sent: 8/30/2019 7:29:41 PM
To: Long, Pam [Long.Pam@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Santiago, Juan [Santiago.Juan@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: 1 on 1 Entries - [Ex. 5 Deliberative Process (DP)]

I'd like to add an item pinging OAR on the status of scheduling a [Ex. 5 Deliberative Process (DP)] meeting on Biomass rulemaking [Ex. 5 Deliberative Process (DP)]

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

CONFIDENTIALITY. This email and any attachments are confidential, except where the email states it can be disclosed; it may also be covered by deliberative privilege. If received in error, please do not disclose the contents to anyone, but notify the sender by return email and delete this email and any attachments from your system.

From: Long, Pam <Long.Pam@epa.gov>
Sent: Friday, August 30, 2019 9:05 AM
To: Mathias, Scott <Mathias.Scott@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>
Subject: 1 on 1 Entries - [Ex. 5 Deliberative Process (DP)]
Importance: High

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 12/19/2019 7:11:50 PM
To: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]
Subject: Ex. 5 Deliberative Process (DP) Biogenic CO2
Attachments: Ex. 5 Deliberative Process (DP) Biogenic CO2 Ex. 5 Deliberative Process (DP)

Yvonne –

Here are the documents for the FAR.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 12/19/2019 4:25:48 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Action Memo
Attachments: Ex. 5 Deliberative Process (DP) Biogenic CO2.docx

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 12/18/2019 8:09:59 PM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Revised Biogenic CO2 Preamble
Attachments: Ex. 5 Deliberative Process (DP) Biogenic CO2 Rulemaking; Ex. 5 Deliberative Process (DP)

The Ex. 5 Deliberative Process (DP). This version also Ex. 5 Deliberative Process (DP).

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Mathias, Scott [Mathias.Scott@epa.gov]
Sent: 8/1/2019 4:30:35 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Re: **Ex. 5 Deliberative Process (DP)**

Thanks. I will mention it.

Scott Mathias | Acting Director, Air Quality Policy Division | RTP, NC | 919.541.5310

On Aug 1, 2019, at 12:27 PM, Kornylak, Vera S. <Kornylak.Vera@epa.gov> wrote:

Scott: I met **Ex. 5 Deliberative Process (DP)** about the biomass rule.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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Message

From: Ashley, Jackie [Ashley.Jackie@epa.gov]
Sent: 7/29/2019 5:15:06 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Subject: FYI: biomass and carbon neutrality

FYI – no action requested

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Thundiyil, Karen <Thundiyil.Karen@epa.gov>
Sent: Monday, July 29, 2019 12:57 PM
To: Cyran, Carissa <Cyran.Carissa@epa.gov>
Cc: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: biomass and carbon neutrality

Hi – Just for your awareness, the May response was provided to Collins office earlier this month. Today, her office reached out again requesting more information.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Karen.

From: Cyran, Carissa
Sent: Monday, July 22, 2019 2:12 PM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>
Cc: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: biomass and carbon neutrality

Hi Karen,

There is no new information to share on biomass and carbon neutrality. Please use the response provided in May.

Thank you,

Carissa

From: Thundiyil, Karen
Sent: Tuesday, July 16, 2019 4:56 PM
To: Cyran, Carissa <Cyran.Carissa@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: biomass and carbon neutrality

Hello –

Senator Collins's office continues to be interested in biomass and carbon neutrality. If there are any updates on the Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs NPRM, beyond the Reg Agenda info (slated for a NPRM in October 2019), please let me know.

Also, if there's any work occurring with DOE and USDA that can be shared since the April 2018 joint statement, let me know.

I understand if there's no update since the early May 2019 email.

Thanks,

Karen.

From: Cyran, Carissa

Sent: Friday, May 03, 2019 5:03 PM

To: Ashley, Jackie <Ashley.Jackie@epa.gov>; Thundiyil, Karen <Thundiyil.Karen@epa.gov>

Subject: RE: Ex. 5 Deliberative Process (DP)

Hi Jackie and Karen,

Below is OAR's response from Clint and David on biomass and carbon neutrality. I plan to send this statement to Ed Walsh so he can provide it to Congressman Simpson's staff.

Biomass Status

In April 2018, EPA issued a policy statement announcing that EPA's policy in forthcoming regulatory actions and in various programmatic contexts will be to treat biogenic CO₂ emissions resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral. In November 2018, EPA, USDA, and DOE sent a letter to the Senate and House Committees on Appropriations describing the agencies' work to ensure consistent federal policy on forest biomass energy and promote clear policies that encourage the treatment of forest biomass as a carbon-neutral renewable energy solution.

EPA is examining several opportunities to further address the treatment of biogenic CO₂ emissions from biomass. To that end, the Agency assembled an internal workgroup in May 2018, and the group has identified a number of regulatory and non-regulatory options the Agency may pursue in 2019 and 2020. For example, the Agency may seek opportunities, in related rulemakings or site-specific determinations, to build upon the April 2018 policy statement. The Agency is also still evaluating recent, related advice from its Science Advisory Board on related science-policy issues. EPA is also evaluating the potential to pursue revisions to its 2011 Guidance for Determining Best Available Control Technology for Reducing CO₂ Emissions from Bioenergy Production as well as rulemaking to revise relevant Prevention of Significant Deterioration or New Source Review regulations to address, clarify, or remove biogenic CO₂ from combustion of biomass from certain requirements. We expect the Agency to propose related changes this year.

Thank you,

Carissa

From: Thundiyil, Karen

Sent: Friday, April 26, 2019 5:18 PM

To: Ashley, Jackie <Ashley.Jackie@epa.gov>

Subject: RE: Ex. 5 Deliberative Process (DP)

Hi Jackie,

Ex. 5 Deliberative Process (DP) it turns out she wants to know about the biomass neutrality rule. Basically what was referred to in the April HAC hearing:

SIMPSON:

First question, a serious question. Well, they're all serious. In the past several final appropriations bill there has been a language that directed the EPA to consult with Forest Service and DOE, to provide clarity on rule that defines biomass as carbon neutral. This is important as trees are key in carbon sequestration. Almost a year ago, the EPA issues a policy statement that seemed to align with the language. Can you update this subcommittee on

further steps the EPA has taken to follow the language included in the appropriations bills?

WHEELER:

We are working on that. We hope to have a proposal out this summer. It's a little more difficult than what we originally anticipated. It's taking some time. But we are moving forward with that. And we intend to have something out this summer.

Are there any updates that can be provided to her office on this proposal the Administrator said we plan to have out this summer?

If this is not your group, please let me know.

From: Ashley, Jackie

Sent: Friday, April 26, 2019 1:27 PM

To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>

Subject: RE: Wood heaters

Ex. 5 Deliberative Process (DP)

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Thundiyil, Karen

Sent: Friday, April 26, 2019 10:09 AM

To: Ashley, Jackie <Ashley.Jackie@epa.gov>

Subject: RE: Wood heaters

Ex. 5 Deliberative Process (DP)

From: Ashley, Jackie
Sent: Friday, April 26, 2019 10:01 AM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>
Subject: Wood heaters

Ex. 5 Deliberative Process (DP)

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 8/9/2019 5:22:55 PM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: RE: Biomass Meeting Request
Attachments: Idsal Meeting Request 8-9-19.docx

Here is the meeting request just so it's ready to go. I included Matt Leopold

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Friday, August 09, 2019 1:11 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: Fwd: Biomass Meeting Request

Can you put together a meeting request for another meeting with Anne?

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sent from my iPhone

Begin forwarded message:

From: "Koerber, Mike" <Koerber.Mike@epa.gov>
Date: August 8, 2019 at 6:27:38 PM EDT
To: "Vetter, Cheryl" <Vetter.Cheryl@epa.gov>
Subject: Fwd: Biomass Meeting Request

Please send up an OAR meeting request. Thanks.

Sent from my iPhone

Begin forwarded message:

From: "Koerber, Mike" <Koerber.Mike@epa.gov>
Date: August 8, 2019 at 6:23:39 PM EDT
To: "Smith, Darcie" <Smith.Darcie@epa.gov>
Cc: "Koerber, Mike" <Koerber.Mike@epa.gov>
Subject: Re: Biomass Meeting Request

Thanks. We also want an OAR briefing.

Ex. 5 Deliberative Process (DP)

Sent from my iPhone

On Aug 8, 2019, at 6:14 PM, Smith, Darcie <Smith.Darcie@epa.gov> wrote:

I heard back on this. Ex. 5 Deliberative Process (DP) the Administrator won't be able to take this meeting until September. They (OAR) are working on getting it scheduled for early Sept.

Darcie Smith
U.S. EPA, OAQPS
<image005.png> 919.541.2076
<image006.png>smith.darcie@epa.gov

From: Koerber, Mike <Koerber.Mike@epa.gov>
Sent: Thursday, August 08, 2019 8:27 AM
To: Smith, Darcie <Smith.Darcie@epa.gov>
Subject: FW: Biomass Meeting Request

Ex. 5 Deliberative Process (DP)

Mike

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Friday, August 02, 2019 12:32 PM
To: Smith, Darcie <Smith.Darcie@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>; McKinney, Voronina <mckinney.voronina@epa.gov>; Massey, Lana <massey.lana@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: Biomass Meeting Request

Darcie –

Here is the meeting request for the biomass meeting between OAR, OGC and the Administrator

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

**[SEQ CHAPTER \h \r 1]OAR Meeting Request Form
For Anne Idsal**

Date of this Request: 08/12/2019

Scheduling Point of Contact: Nina McKinney 919-541-5616

Technical Point of Contact: Scott Mathias 919-541-5310

Subject: Treatment of Biogenic CO2 emissions at stationary sources

Purpose: To discuss the status of a potential rulemaking reflecting EPA's position on the treatment of biogenic CO2 emissions.

- Next ADP Milestone:
- If applicable, due date to: OP __/__/__ (days review); OMB: __/__/__ (days review);
- Legal deadline: (specify court-ordered, settle agreement, court promise, etc.) due date __/__/__;
- Other firm deadline:

First possible date for meeting:

Last possible date for meeting:

Duration: 1 hour

Ex. 5 Deliberative Process (DP)

Requested Audio / Video (*Mark with "X" if requested*)

_____ **Video Location(s):**

List video locations needed (e.g., RTP, DC, Regions)– HQ will set up a bridge if needed

_____ **HQ Conference Line:**

If requested, HQ staff will provide in meeting invite

Invitees (please list by Office and in Outlook format, e.g. *Last, First*):

<u>Office/Org</u>	<u>Name (<i>Last, First</i>)</u>
OAR	Harlow, David; Lewis, Josh
OAQPS:	Tsirigotis, Peter; Koerber, Mike; Harnett, Bill; Mathias, Scott; Kornylak, Vera; Vetter, Cheryl; Baker, Sarah; Svendsgaard, Dave; Spangler, Matthew
OGC	Leopold, Matt, Srinivasan, Gautam; Zenick, Elliott; Doster, Brian; Greenglass, Nora; Krallman, John
OAP	Grundler, Chris; Fawcett, Allen; Irving, Bill; Kocchi, Suzanne; Gunning, Paul; Steller, John; Ohrel, Sara
Schedulers to Cc:	Massey, Lana; Johnson, Yvonnew; Long, Pam

HQ Meeting Briefing Materials: Must provide to OAQPS IO by 5:00pm, 2 days before meeting

Revised 5/2019

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 9/25/2019 4:42:41 PM
To: Massey, Lana [massey.lana@epa.gov]
CC: Mathias, Scott [Mathias.Scott@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Long, Pam [Long.Pam@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Subject: Biogenic CO2 Administrator Meeting Request
Attachments: Biomass Administrator Meeting Request_Sept 2019.docx

Lana-

Attached is a meeting request for an Administrator meeting with OGC and OAR.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov



[SEQ CHAPTER \h \r 1] ***Internal Meeting/Request Form for Administrator
Andrew Wheeler***

Today's Date: September 26, 2019

Requesting Office: OAR/OGC

Title of the Meeting: Options for Exempting Biogenic CO₂ Emissions from Clean Air Act Permitting

Purpose. Discuss **Ex. 5 Deliberative Process (DP)**

Workgroup: N/A

Role of the Administrator: To provide guidance to OAR on rulemaking **Ex. 5 Deliberative Process (DP)**

Background: **Ex. 5 Deliberative Process (DP)**

Last possible date for the meeting: **Ex. 5 Deliberative Process (DP)**

Is the meeting urgent and if so, why?

Requested Time Length: 1 hour

OAR Invitees: Idsal, Anne; Harlow, David

OAQPS Invitees: Tsirigotis, Peter; Koerber, Mike

Other Office Invitees:

OGC: Leopold, Matt; Schwab, Justin; Srinivasan, Gautam

OAP: Grundler, Christopher

External Participants: None

Teleconference Required? Yes

Video Conference Required? Yes

Point of Contact for the Meeting: Emily Atkinson (202) 564-1850

NOTE: Failure to send briefing materials at least 72 hours before the scheduled meeting may result in the meeting being rescheduled at the Director of Scheduling and Advance's discretion.

Message

From: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Sent: 8/28/2019 4:57:51 PM
To: Bunte, Laura [Bunte.Laura@epa.gov]; Brachtl, Megan [Brachtl.Megan@epa.gov]; Ling, Michael [Ling.Michael@epa.gov]; Rao, Raj [Rao.Raj@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]; Santiago, Juan [Santiago.Juan@epa.gov]
CC: Long, Pam [Long.Pam@epa.gov]
Subject: AAPCA Presentations for Scott, Matt, and Liz
Attachments: **Ex. 5 Deliberative Process (DP)**

Attached are powerpoint presentations **Ex. 5 Deliberative Process (DP)**

Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 9/4/2019 5:53:21 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: AF&PA Meeting Summary
Attachments: AF&PA Meeting 9-4-19.docx

I've put together a bit of what I heard during the meeting.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Santiago, Juan [Santiago.Juan@epa.gov]
Sent: 7/23/2019 5:27:00 PM
To: Keller, Peter [keller.peter@epa.gov]; Buckler, Charles [Buckler.Charles@epa.gov]; Montanez, Jessica [Montanez.Jessica@epa.gov]; Svendsgaard, Dave [Svendsgaard.Dave@epa.gov]; Modak, Nabanita [Modak.Nabanita@epa.gov]; Abrahamian, Tanya [abrahamian.tanya@epa.gov]; Spangler, Matthew [Spangler.Matthew@epa.gov]; Mataway-Novak, Dylan [Mataway-Novak.Dylan@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]; Deroeck, Dan [Deroeck.Dan@epa.gov]
CC: Mathias, Scott [Mathias.Scott@epa.gov]; Rao, Raj [Rao.Raj@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Plan for tomorrow's NSR Overview Briefing
Attachments: Final NSR Overview Briefing for Anne Idsal 7-24-19.docx

Hi everyone,

Just wanted to communicate the plan for tomorrow's briefing with Anne Idsal as part of the OAR team visit to RTP. The

Ex. 5 Deliberative Process (DP)

Attached is the final briefing document we plan to use.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

I hope this makes sense to everyone. If there are any questions or concerns please let me know.

Thanks!
Juan

**NSR Improvement Projects Status Update
Briefing for Anne Idsal - July 24, 2019**

Phase 1 Ongoing NSR Actions

Project	Status	Target
<div>Ex. 5 Deliberative Process (DP)</div>		

NSR Improvement Projects Status Update
Briefing for Anne Idsal - July 24, 2019

Phase 1 Ongoing NSR Actions

Project	Status	Target
<div>Ex. 5 Deliberative Process (DP)</div> <div>Ex. 5 AC/DP</div>	Ex. 5 AC/DP	TBD

Phase 2 NSR Actions

Project	Status	Target
<div>Ex. 5 Deliberative Process (DP)</div>		

NSR Improvement Projects Status Update
Briefing for Anne Idsal - July 24, 2019

Phase 2 NSR Actions

Project	Status	Target
<div>Ex. 5 Deliberative Process (DP)</div>		TBD
		TBD
		<div>Ex. 5 Deliberative Process (DP)</div>

**NSR Improvement Projects Status Update
Briefing for Anne Idsal - July 24, 2019**

Appendix – Completed NSR Improvement Actions

Guidance: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability under NSR

- Issued December 7, 2017

Ex. 5 Deliberative Process (DP)

Guidance: Reclassification of Major Sources as Area Sources under Section 112 of the CAA

- Issued January 25, 2018
- Withdrew the 1995 memo that established the “once in always in” policy under section 112

Ex. 5 Deliberative Process (DP)

Guidance: Project Emissions Accounting Under the NSR Preconstruction Permitting Program

- Issued March 13, 2018
- Clarifies that the current NSR regulations provide for the accounting of both emissions increases and decreases under step 1 of the NSR applicability process

Ex. 5 Deliberative Process (DP)

Guidance: Significant Impact Levels for Ozone and Fine Particles

- Issued April 17, 2018
- Guidance and supporting documents recommend SILs for ozone and fine particle pollution that may be used in the PSD permitting program

Ex. 5 Deliberative Process (DP)

Guidance: Source Aggregation - Common Control

- **Common Control:** Issued two letters on April 30, 2018 (Meadowbrook) and October 16, 2018 (Ameresco) concerning “common control” aspect of source aggregation

Ex. 5 Deliberative Process (DP)

Final Action: Project Aggregation Reconsideration

- Completed November 7, 2018
- Finalizes the 2010 reconsideration rule and lifts the stay of the 2009 final action on project aggregation

Ex. 5 Deliberative Process (DP)

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 9/25/2019 2:05:02 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: Biogenic CO2 Administrator Meeting Request
Attachments: Biomass Administrator Meeting Request_Sept 2019.docx

Scott-

Attached is the revised meeting request for the Administrator

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Just let me know if I should change that. Thanks.

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov



[SEQ CHAPTER \h \r 1] ***Internal Meeting/Request Form for Administrator
Andrew Wheeler***

Today's Date: September 26, 2019

Requesting Office: OAR/OGC

Title of the Meeting: Options for Exempting Biogenic CO₂ Emissions from Clean Air Act Permitting

Purpose: **Ex. 5 Deliberative Process (DP)**

Workgroup: N/A

Role of the Administrator: To provide guidance to OAR on rulemaking **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Last possible date for the meeting: October 11, 2019

Is the meeting urgent and if so, why?

Requested Time Length: 1 hour

OAR Invitees: Idsal, Anne; Harlow, David; Grundler, Christopher

OAQPS Invitees: Tsirigotis, Peter; Koerber, Mike

Other Office Invitees:

OGC: Leopold, Matt; Schwab, Justin; Doster, Brian

External Participants: None

Teleconference Required? Yes

Video Conference Required? Yes

Point of Contact for the Meeting: Emily Atkinson (202) 564-1850

NOTE: Failure to send briefing materials at least 72 hours before the scheduled meeting may result in the meeting being rescheduled at the Director of Scheduling and Advance's discretion.

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 9/20/2019 1:13:00 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Biomass Briefing Paper
Attachments: Ex. 5 Deliberative Process (DP) Briefing Document 9-20-19.docx

Vera-

Attached is the first draft for the

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 7/12/2019 5:24:54 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Update on Anne briefing

That looks good to me. Regarding the docket, does that mean you are okay with the form I sent you yesterday and I should send that off to Pam to get started? Thanks!
Sarah

From: Kornylak, Vera S.
Sent: Friday, July 12, 2019 11:54 AM
To: Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Update on Anne briefing

Hi Sarah and Cheryl, **Ex. 5 Deliberative Process (DP)** the briefing for Anne **Ex. 5 Deliberative Process (DP)**
Ex. 5 Deliberative Process (DP) **Ex. 5 Deliberative Process (DP)**

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

This message, including attachments, contains information that may be deliberative and confidential, and may be protected by attorney work-product, attorney-client or other applicable privileges. Further, this message, including attachments, may be exempt from disclosure by the U.S. EPA under applicable law. This message, including attachments, is intended to be conveyed only to the named recipient(s). If you received this message in error, or if you are not the intended recipient, please notify the sender listed above and delete the message from your system immediately. The unauthorized use, dissemination, distribution or reproduction of this message, including attachments, by unintended recipients is prohibited and may be unlawful.

From: Baker, Sarah
Sent: Friday, July 12, 2019 11:39 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Mathias, Scott <Mathias.Scott@epa.gov>
Subject: RE: Update on Anne briefing

Vera-

Here is a paragraph which I believe reflects the latest direction that we have been given.

Ex. 5 Deliberative Process (DP)

From: Kornylak, Vera S.
Sent: Friday, July 12, 2019 11:34 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Cc: Mathias, Scott <Mathias.Scott@epa.gov>
Subject: RE: Update on Anne briefing

Cheryl, great.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,
Vera

PS. Hope all went well yesterday

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

This message, including attachments, contains information that may be deliberative and confidential, and may be protected by attorney work-product, attorney-client or other applicable privileges. Further, this message, including attachments, may be exempt from disclosure by the U.S. EPA under applicable law. This message, including attachments, is intended to be conveyed only to the named recipient(s). If you received this message in error, or if you are not the intended recipient, please notify the sender listed above and delete the message from your system immediately. The unauthorized use, dissemination, distribution or reproduction of this message, including attachments, by unintended recipients is prohibited and may be unlawful.

From: Vetter, Cheryl
Sent: Friday, July 12, 2019 11:32 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Cc: Mathias, Scott <Mathias.Scott@epa.gov>
Subject: RE: Update on Anne briefing

Hey Vera,

I needed to ask Mike about something else, so asked about this while I was down there.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Kornylak, Vera S.
Sent: Friday, July 12, 2019 9:10 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Subject: Update on Anne briefing

Hi, according to Mike

Ex. 5 Deliberative Process (DP)

schedule whenever and at a minimum,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

This message, including attachments, contains information that may be deliberative and confidential, and may be protected by attorney work-product, attorney-client or other applicable privileges. Further, this message, including attachments, may be exempt from disclosure by the U.S. EPA under applicable law. This message, including attachments, is intended to be conveyed only to the named recipient(s). If you received this message in error, or if you are not the intended recipient, please notify the sender listed above and delete the message from your system immediately. The unauthorized use, dissemination, distribution or reproduction of this message, including attachments, by unintended recipients is prohibited and may be unlawful.

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 7/12/2019 12:07:05 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Biogenic meeting request for 7/24
Attachments: Idsal Meeting Request.docx

Vera-

Here is a meeting request for your review,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks.
Sarah

From: Kornylak, Vera S.
Sent: Friday, July 12, 2019 7:56 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Subject: Biogenic meeting request for 7/24

Hello again,

Ex. 5 Deliberative Process (DP)

Here's another request from 4th floor:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

I'm thinking she wants to hear a status update of

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Do you think you can do a meeting request today **Ex. 5 Deliberative Process (DP)**

Thanks,
Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

This message, including attachments, contains information that may be deliberative and confidential, and may be protected by attorney work-product, attorney-client or other applicable privileges. Further, this message, including attachments, may be exempt from disclosure by the U.S. EPA under applicable law. This message, including attachments, is intended to be conveyed only to the named recipient(s). If you received this message in error, or if you are not the intended recipient, please notify the sender listed above and delete the message from your system immediately. The unauthorized use, dissemination, distribution or reproduction of this message, including attachments, by unintended recipients is prohibited and may be unlawful.

**[SEQ CHAPTER \h \r 1]OAR Meeting Request Form
For Anne Idsal**

Date of this Request: 07/15/2019

Scheduling Point of Contact: Nina McKinney 919-541-5616

Technical Point of Contact: Scott Mathias 919-541-5310

Subject: Treatment of Biogenic CO2 emissions at stationary sources

Purpose: To discuss the status of a **Ex. 5 Deliberative Process (DP)**
biogenic CO2 emissions.

- Next ADP Milestone:
- If applicable, due date to: OP __/__/__ (days review); OMB: __/__/__ (days review);
- Legal deadline: (specify court-ordered, settle agreement, court promise, etc.) due date __/__/__;
- Other firm deadline:

First possible date for meeting: 07/22/2019

Last possible date for meeting: 08/09/2019

Duration: 1 hour

Requested Audio / Video (*Mark with "X" if requested*)

_____ **Video Location(s):**

List video locations needed (e.g., RTP, DC, Regions)– HQ will set up a bridge if needed

_____ **HQ Conference Line:**

If requested, HQ staff will provide in meeting invite

Invitees (please list by Office and in Outlook format, e.g. *Last, First*):

<u>Office/Org</u>	<u>Name (<i>Last, First</i>)</u>
OAR	Harlow, David; Lewis, Josh
OAQPS:	Tsirigotis, Peter; Koerber, Mike; Harnett, Bill; Mathias, Scott; Kornylak, Vera; Vetter, Cheryl; Baker, Sarah; Svendsgaard, Dave; Spangler, Matthew
OGC	Srinivasan, Gautam; Zenick, Elliott; Doster, Brian; Greenglass, Nora; Krallman, John
OAP	Dunham, Sarah; Fawcett, Allen; Irving, Bill; Kocchi, Suzanne; Gunning, Paul; Steller, John; Ohrel, Sara
Schedulers to Cc:	Massey, Lana; Johnson, Yvonnew; Long, Pam

HQ Meeting Briefing Materials: Must provide to OAQPS IO by 5:00pm, 2 days before meeting

Revised 5/2019

Message

From: Ashley, Jackie [Ashley.Jackie@epa.gov]
Sent: 7/17/2019 12:58:45 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: biomass and carbon neutrality

Thanks.

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Kornylak, Vera S.
Sent: Wednesday, July 17, 2019 8:55 AM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Re: biomass and carbon neutrality

Hi Jackie - the OAR IO is probably your best bet.

Vera

Vera Kornylak
OAQPS/AQPD
919-541-4067
kornylak.vera@epa.gov

On Jul 17, 2019, at 8:40 AM, Ashley, Jackie <Ashley.Jackie@epa.gov> wrote:

Vera – see the request below.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) What do you think?

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Cyran, Carissa
Sent: Tuesday, July 16, 2019 5:15 PM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: biomass and carbon neutrality

Ex. 5 Deliberative Process (DP)

From: Thundiyil, Karen
Sent: Tuesday, July 16, 2019 4:56 PM
To: Cyran, Carissa <Cyran.Carissa@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: biomass and carbon neutrality

Hello –

Senator Collins's office continues to be interested in biomass and carbon neutrality.

Ex. 5 Deliberative Process (DP)

Thanks,

Karen.

From: Cyran, Carissa

Sent: Friday, May 03, 2019 5:03 PM

To: Ashley, Jackie <Ashley.Jackie@epa.gov>; Thundiyil, Karen <Thundiyil.Karen@epa.gov>

Subject: RE: Wood heaters

Hi Jackie and Karen,

Below is OAR's response from Clint and David on biomass and carbon neutrality. I plan to send this statement to Ed Walsh so he can provide it to Congressman Simpson's staff.

Biomass Status

In April 2018, EPA issued a policy statement announcing that EPA's policy in forthcoming regulatory actions and in various programmatic contexts will be to treat biogenic CO₂ emissions resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral. In November 2018, EPA, USDA, and DOE sent a letter to the Senate and House Committees on Appropriations describing the agencies' work to ensure consistent federal policy on forest biomass energy and promote clear policies that encourage the treatment of forest biomass as a carbon-neutral renewable energy solution.

Ex. 5 Deliberative Process (DP)

Thank you,

Carissa

From: Thundiyil, Karen

Sent: Friday, April 26, 2019 5:18 PM

To: Ashley, Jackie <Ashley.Jackie@epa.gov>

Subject: RE: Wood heaters

Hi Jackie,

Ex. 5 Deliberative Process (DP)

it turns out she wants to know about the biomass neutrality rule. Basically what was referred to in the April HAC hearing:

SIMPSON:

First question, a serious question. Well, they're all serious. In the past several final appropriations bill there has been a language that directed the EPA to consult with Forest Service and DOE, to provide clarity on rule that defines biomass as carbon neutral. This is important as trees are key in carbon sequestration. Almost a year ago, the EPA issues a policy statement that seemed to align with the language. Can you update this subcommittee on further steps the EPA has taken to follow the language included in the appropriations bills?

WHEELER:

We are working on that. We hope to have a proposal out this summer. It's a little more difficult than what we originally anticipated. Its taking some time. But we are moving forward with that. And we intend to have something out this summer.

Ex. 5 Deliberative Process (DP)

From: Ashley, Jackie

Sent: Friday, April 26, 2019 1:27 PM

To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>

Subject: RE: Wood heaters

Ex. 5 Deliberative Process (DP)

From: Thundiyil, Karen
Sent: Friday, April 26, 2019 10:09 AM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: Wood heaters

Ex. 5 Deliberative Process (DP)

Karen.

From: Ashley, Jackie
Sent: Friday, April 26, 2019 10:01 AM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>
Subject: Wood heaters

Ex. 5 Deliberative Process (DP)

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 7/17/2019 12:51:08 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Baker, Sarah [baker.sarah@epa.gov]
Subject: Re: biomass and carbon neutrality

Ex. 5 Deliberative Process (DP)

Sent from my iPhone

On Jul 17, 2019, at 8:49 AM, Kornylak, Vera S. <Kornylak.Vera@epa.gov> wrote:

Sarah, Cheryl - how would you like to handle this request?

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak
OAQPS/AQPD
919-541-4067
kornylak.vera@epa.gov

Begin forwarded message:

From: "Ashley, Jackie" <Ashley.Jackie@epa.gov>
Date: July 17, 2019 at 8:40:19 AM EDT
To: "Kornylak, Vera S." <Kornylak.Vera@epa.gov>
Cc: "Johnson, Yvonne W" <Johnson.Yvonnew@epa.gov>
Subject: FW: biomass and carbon neutrality

Vera – see the request below.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 –
ashley.jackie@epa.gov

From: Cyran, Carissa
Sent: Tuesday, July 16, 2019 5:15 PM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: biomass and carbon neutrality

Ex. 5 Deliberative Process (DP)

From: Thundiyil, Karen
Sent: Tuesday, July 16, 2019 4:56 PM
To: Cyran, Carissa <Cyran.Carissa@epa.gov>; Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: biomass and carbon neutrality

Hello –

Senator Collins's office continues to be interested in biomass and carbon neutrality. If there are any updates on the Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs NPRM, beyond the Reg Agenda info (slated for a NPRM in October 2019), please let me know.

Ex. 5 Deliberative Process (DP)

From: Cyran, Carissa

Sent: Friday, May 03, 2019 5:03 PM

To: Ashley, Jackie <Ashley.Jackie@epa.gov>; Thundiyil, Karen

<Thundiyil.Karen@epa.gov>

Subject: RE: Wood heaters

Hi Jackie and Karen,

Below is OAR's response from Clint and David on biomass and carbon neutrality. I plan to send this statement to Ed Walsh so he can provide it to Congressman Simpson's staff.

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In April 2018, EPA issued a policy statement announcing that EPA's policy in forthcoming regulatory actions and in various programmatic contexts will be to treat biogenic CO2 emissions resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral. In November 2018, EPA, USDA, and DOE sent a letter to the Senate and House Committees on Appropriations describing the agencies' work to ensure consistent federal policy on forest biomass energy and promote clear policies that encourage the treatment of forest biomass as a carbon-neutral renewable energy solution.

Ex. 5 Deliberative Process (DP)

Thank you,

Carissa

From: Thundiyil, Karen
Sent: Friday, April 26, 2019 5:18 PM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: Wood heaters

Hi Jackie,

Ex. 5 Deliberative Process (DP) it turns out she wants to know about the biomass neutrality rule. Basically what was referred to in the April HAC hearing:

SIMPSON:

First question, a serious question. Well, they're all serious. In the past several final appropriations bill there has been a language that directed the EPA to consult with Forest Service and DOE, to provide clarity on rule that defines biomass as carbon neutral. This is important as trees are key in carbon sequestration. Almost a year ago, the EPA issues a policy statement that seemed to align with the language. Can you update this subcommittee on further steps the EPA has taken to follow the language included in the appropriations bills?

WHEELER:

We are working on that. We hope to have a proposal out this summer. It's a little more difficult than what we originally anticipated. Its taking some time. But we are moving forward with that. And we intend to have something out this summer.

Ex. 5 Deliberative Process (DP)

From: Ashley, Jackie
Sent: Friday, April 26, 2019 1:27 PM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>
Subject: RE: Wood heaters

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 –
ashley.jackie@epa.gov

From: Thundiyil, Karen
Sent: Friday, April 26, 2019 10:09 AM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: Wood heaters

Ex. 5 Deliberative Process (DP)

From: Ashley, Jackie
Sent: Friday, April 26, 2019 10:01 AM
To: Thundiyil, Karen <Thundiyil.Karen@epa.gov>
Subject: Wood heaters

Ex. 5 Deliberative Process (DP)

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 –
ashley.jackie@epa.gov

Message

From: Long, Pam [Long.Pam@epa.gov]
Sent: 7/10/2019 2:52:43 PM
To: Baker, Sarah [baker.sarah@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: ADP Milestone: Ex. 5 Deliberative Process (DP)
Attachments: OAR_Biogenic CO2 Rulemaking Workgroup.pdf

Below is the link to the form you send out to the official workgroup to request a milestone

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Email responses are okay.

This the summary form you fill out once everyone has responded by your due date and then submit to

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Always cc me when send the first form out so I know what is happening.

Hope this helps!

Message

From: Smith, Darcie [Smith.Darcie@epa.gov]
Sent: 10/3/2019 3:15:28 PM
To: Baker, Sarah [baker.sarah@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]
Subject: Re: Biogenic CO2 Briefing Paper

Hi Sarah

This was sent to OAR last night and handed to Anne this morning.

Darcie

Sent from my iPhone

On Oct 2, 2019, at 12:37 PM, Baker, Sarah <baker.sarah@epa.gov> wrote:

Darcie-

Attached is the biomass briefing document

Ex. 5 Deliberative Process (DP) **Ex. 5 Deliberative Process (DP)**

Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

<Biomass Exemption Administrator Briefing Paper 10-3-19.docx>

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 6/26/2019 12:28:37 PM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Biomass Briefing Summary
Attachments: Wehrum Briefing Summary 6-14-19.docx

Attached are my notes from our briefing this week with Bill.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

we are all on the same page as far as next steps. Thanks.

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Discussion Overview

Ex. 5 Deliberative Process (DP)

Takeaways

Ex. 5 Deliberative Process (DP)

Action Items

Ex. 5 Deliberative Process (DP)

Message

From: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Sent: 9/3/2019 1:07:11 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]; Santiago, Juan [Santiago.Juan@epa.gov]; Brachtl, Megan [Brachtl.Megan@epa.gov]; Ling, Michael [Ling.Michael@epa.gov]; Rao, Raj [Rao.Raj@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
CC: Long, Pam [Long.Pam@epa.gov]; Etchells, Elizabeth [Etchells.Elizabeth@epa.gov]
Subject: Feedback on 1/1 entries

Ex. 5 Deliberative Process (DP)

AWAITING FEEDBACK FROM OAR

Biomass Rulemaking Meeting:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 9/5/2018 2:34:04 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review
Attachments: EPA Action Template 20141230 - 2060-AU03_Sep-05-2018.docx

Vera,

Here is the clean version of the SAB template **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Jessica

Mike,

Thanks for the opportunity **Ex. 5 Deliberative Process (DP)** for the SAB Template of the Treatment of Biogenic CO2 Emissions Action,

Ex. 5 Deliberative Process (DP)

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Wednesday, September 05, 2018 8:18 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica: your edits look right to me. Can you please send me the final clean version **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thank you!
Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Tuesday, September 04, 2018 4:34 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
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From: Kornylak, Vera S.
Sent: Tuesday, September 04, 2018 1:01 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica: your edits are fine to me.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Tuesday, September 04, 2018 12:54 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Thank for the edits.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
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From: Kornylak, Vera S.
Sent: Tuesday, September 04, 2018 11:46 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 1:56 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Yes, that works. Here is the clean version of the document. I accepted all edits,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 1:49 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica

Sent: Friday, August 31, 2018 1:47 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.

Sent: Friday, August 31, 2018 1:44 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor

Air Quality Policy Division || OAQPS

919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica

Sent: Friday, August 31, 2018 1:43 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

What would you like to do with the SAB template?

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Montanez, Jessica
Sent: Friday, August 31, 2018 12:12 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

I sent the SAB template to OAP Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Friday, August 31, 2018 12:10 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Happy to discuss further if you would like.
Sara

From: Montanez, Jessica
Sent: Friday, August 31, 2018 11:34 AM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Thanks Sara.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Friday, August 31, 2018 11:09 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Thank you again for the opportunity to put forth edits.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sara

From: Montanez, Jessica
Sent: Wednesday, August 29, 2018 4:42 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Friday morning should be OK. Ex. 5 Deliberative Process (DP)

Thanks,

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara

Sent: Wednesday, August 29, 2018 4:38 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hello Jessica,

Thank you for sharing this, we can help.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Montanez, Jessica

Sent: Wednesday, August 29, 2018 4:31 PM

To: Steller, John <Steller.John@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>

Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

John and Sara,

The SAB has flagged our biogenic CO2 emissions rule as a potential action that they want to review further in the future.

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Hockstad, Leif

Sent: Tuesday, August 28, 2018 4:24 PM

To: Koerber, Mike <Koerber.Mike@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda available

Mike –

Ex. 5 Deliberative Process (DP)

SAB DFO took a look at the templates and tried to ascertain where the SAB Workgroup might be interested in more information.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Under the Clean Air Act Permitting Programs (2060-AU03);

Treatment of Biogenic CO2 Emissions

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

In terms of next steps,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,
Leif

Ex. 5 Deliberative Process (DP)

Leif Hockstad
Office of Air and Radiation - OAPPS
U.S. Environmental Protection Agency
Phone: 202 343 9432
hockstad.leif@epa.gov

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 9/5/2018 12:27:28 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ok. Will do.

On the briefing paper,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Wednesday, September 05, 2018 8:18 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica: your edits look right to me.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thank you!

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Tuesday, September 04, 2018 4:34 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
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From: Kornylak, Vera S.
Sent: Tuesday, September 04, 2018 1:01 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica: your edits are fine to me.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

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Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Tuesday, September 04, 2018 12:54 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Thank for the edits.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.

Sent: Tuesday, September 04, 2018 11:46 AM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>

Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica

Sent: Friday, August 31, 2018 1:56 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.

Sent: Friday, August 31, 2018 1:49 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi, yes, well when I send it back

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor

Air Quality Policy Division || OAQPS

919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica

Sent: Friday, August 31, 2018 1:47 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 1:44 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 1:43 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

What would you like to do with the SAB template?

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Montanez, Jessica
Sent: Friday, August 31, 2018 12:12 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

I sent the SAB template to: Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara

Sent: Friday, August 31, 2018 12:10 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Ex. 5 Deliberative Process (DP)

Happy to discuss further if you would like.

Sara

From: Montanez, Jessica

Sent: Friday, August 31, 2018 11:34 AM

To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Thanks Sara. Is there something more we can say for question 6? We were asked to add more information there since "to be determined" was not enough.

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Friday, August 31, 2018 11:09 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Thank you again for the opportunity to put forth edits.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sara

From: Montanez, Jessica
Sent: Wednesday, August 29, 2018 4:42 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Friday morning should be OK. **Ex. 5 Deliberative Process (DP)**

Thanks,

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Wednesday, August 29, 2018 4:38 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hello Jessica,

Thank you for sharing this, we can help.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Montanez, Jessica

Sent: Wednesday, August 29, 2018 4:31 PM

To: Steller, John <Steller.John@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>

Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

John and Sara,

The SAB has flagged our biogenic CO2 emissions rule as a potential action that they want to review further in the future.

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Hockstad, Leif

Sent: Tuesday, August 28, 2018 4:24 PM

To: Koerber, Mike <Koerber.Mike@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda available

Mike –

Ex. 5 Deliberative Process (DP)

The SAB DFO flagged for us that the

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Treatment of Biogenic CO2 Emissions

Under the Clean Air Act Permitting Programs (2060-AU03);

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,
Leif

Ex. 5 Deliberative Process (DP)

Leif Hockstad
Office of Air and Radiation - OAPPS
U.S. Environmental Protection Agency
Phone: 202 343 9432
hockstad.leif@epa.gov

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 9/4/2018 8:47:59 PM
To: Montanez, Jessica [Montanez.Jessica@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Makes sense to delete it, to me.

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Montanez, Jessica
Sent: Tuesday, September 04, 2018 4:34 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Tuesday, September 04, 2018 1:01 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica: your edits are fine to me.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor

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From: Montanez, Jessica
Sent: Tuesday, September 04, 2018 12:54 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Thank for the edits.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Tuesday, September 04, 2018 11:46 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 1:56 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Yes, that works. Here is the clean version of the document.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 1:49 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi, yes,

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 1:47 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 1:44 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 1:43 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

What would you like to do with the SAB template?

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Montanez, Jessica

Sent: Friday, August 31, 2018 12:12 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara

Sent: Friday, August 31, 2018 12:10 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Happy to discuss further if you would like.

Sara

From: Montanez, Jessica

Sent: Friday, August 31, 2018 11:34 AM

To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Thanks Sara.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

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From: Ohrel, Sara

Sent: Friday, August 31, 2018 11:09 AM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Ex. 5 Deliberative Process (DP)

Sara

From: Montanez, Jessica

Sent: Wednesday, August 29, 2018 4:42 PM

To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Friday morning should be OK. **Ex. 5 Deliberative Process (DP)**

Thanks,

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Wednesday, August 29, 2018 4:38 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hello Jessica,

Thank you for sharing this, we can help.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Montanez, Jessica
Sent: Wednesday, August 29, 2018 4:31 PM
To: Steller, John <Steller.John@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>
Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

John and Sara,

The SAB has flagged our biogenic CO2 emissions rule as a potential action that they want to review further in the future.

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Hockstad, Leif
Sent: Tuesday, August 28, 2018 4:24 PM
To: Koerber, Mike <Koerber.Mike@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda available

Mike –

Ex. 5 Deliberative Process (DP)

The SAB DFO flagged for us that the

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

, Treatment of Biogenic CO2 Emissions

Under the Clean Air Act Permitting Programs (2060-AU03); a

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,
Leif

Ex. 5 Deliberative Process (DP)

Leif Hockstad

Office of Air and Radiation - OAPPS

U.S. Environmental Protection Agency

Phone: 202 343 9432

hockstad.leif@epa.gov

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 9/4/2018 2:48:15 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Treatment of Biogenic CO2 Emissions in Permitting - Meeting Requests for Alex Dominguez and Bill Wehrum
Attachments: OAR AA Wehrum Meeting Request_BiogenicCO2Emissions_08312018.docx; OAR Alex Dominguez Meeting Request_BiogenicCO2Permitting_08312018.docx

Vera,

Ex. 5 Deliberative Process (DP)	Here is the Ex. 5 Deliberative Process (DP) briefing for Bill Wehrum.	Ex. 5 Deliberative Process (DP)
---------------------------------	---	---------------------------------

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 3:46 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions in Permitting - Meeting Requests for Alex Dominguez and Bill Wehrum

Hi Jessica,	Ex. 5 Deliberative Process (DP)
-------------	---------------------------------

Ex. 5 Deliberative Process (DP)

Thanks & let's reconvene on Tuesday.

Have a great weekend.

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 2:25 PM

To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Subject: Treatment of Biogenic CO2 Emissions in Permitting - Meeting Requests for Alex Dominguez and Bill Wehrum

Cheryl and Vera,

Ex. 5 Deliberative Process (DP)

Thanks,

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 8/31/2018 5:42:44 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: SAB draft recommendations report and Chartered SAB Meeting

Ex. 5 Deliberative Process (DP)

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 1:38 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: SAB draft recommendations report and Chartered SAB Meeting

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 12:20 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: RE: SAB draft recommendations report and Chartered SAB Meeting

Ex. 5 Deliberative Process (DP)

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.

Sent: Friday, August 31, 2018 7:05 AM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>

Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: RE: SAB draft recommendations report and Chartered SAB Meeting

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor

Air Quality Policy Division || OAQPS

919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica

Sent: Thursday, August 30, 2018 2:55 PM

To: Cole, Jefferson <Cole.Jefferson@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Elman, Barry <Elman.Barry@epa.gov>; Bird, Patrick <Bird.Patrick@epa.gov>; Moskal, John <Moskal.John@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Johnson, Terry <Johnson.Terry@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>; McFadden, Kelly <McFadden.Kelly@epa.gov>; Ceron, Heather <Ceron.Heather@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Kornylak, Vera S.

<Kornylak.Vera@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Moran, Robin <moran.robin@epa.gov>

Subject: FW: SAB draft recommendations report and Chartered SAB Meeting

Workgroup,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara

Sent: Wednesday, August 29, 2018 3:23 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>

Cc: Steller, John <Steller.John@epa.gov>

Subject: FW: SAB draft recommendations report and Chartered SAB Meeting

FYI

An updated SAB draft peer review recommendations report on the 2nd draft Biogenic CO₂ Framework and a notice for a meeting of the Chartered SAB to discuss this draft report were posted publicly this afternoon. The draft report is attached and the Chartered SAB meeting is scheduled for September 26, 1-5pm

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sara Bushey Ohrel

Climate Change Division

U.S. Environmental Protection Agency

(202) 343-9712

ohrel.sara@epa.gov

***deliberative

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 8/31/2018 4:16:25 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review
Attachments: EPA action_Template 20141230 - 2060-AU03 Aug 16 OAR-LH-OAP.DOCX

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 12:14 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Friday, August 31, 2018 12:12 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Vera,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Friday, August 31, 2018 12:10 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Ex. 5 Deliberative Process (DP)

Sara

From: Montanez, Jessica
Sent: Friday, August 31, 2018 11:34 AM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara

Sent: Friday, August 31, 2018 11:09 AM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hi Jessica,

Ex. 5 Deliberative Process (DP)

Sara

From: Montanez, Jessica

Sent: Wednesday, August 29, 2018 4:42 PM

To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Friday morning should be OK.

Ex. 5 Deliberative Process (DP)

Thanks,

Jessica

Jessica Montañez

Office of Air Quality Planning and Standards

Air Quality Policy Division

New Source Review Group

109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara

Sent: Wednesday, August 29, 2018 4:38 PM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Steller, John <Steller.John@epa.gov>

Subject: RE: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

Hello Jessica,

Thank you for sharing this, we can help.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Montanez, Jessica

Sent: Wednesday, August 29, 2018 4:31 PM

To: Steller, John <Steller.John@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>

Subject: FW: Spring 2018 Semiannual Agenda - Biogenic CO2 Emissions Rule SAB Review

John and Sara,

The SAB has flagged our biogenic CO2 emissions rule as a potential action that they want to review further in the future.

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Hockstad, Leif
Sent: Tuesday, August 28, 2018 4:24 PM
To: Koerber, Mike <Koerber.Mike@epa.gov>
Subject: RE: Spring 2018 Semiannual Agenda available

Ex. 5 Deliberative Process (DP)

The SAB DFO flagged for us that

Ex. 5 Deliberative Process (DP)

Under the Clean Air Act Permitting Programs (2060-AU03);

Treatment of Biogenic CO2 Emissions
Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks,
Leif

Ex. 5 Deliberative Process (DP)

Leif Hockstad
Office of Air and Radiation - OAPPS
U.S. Environmental Protection Agency
Phone: 202 343 9432
hockstad.leif@epa.gov

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 8/31/2018 2:37:17 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Montanez, Jessica [Montanez.Jessica@epa.gov]
Subject: RE: SAB draft recommendations report and Chartered SAB Meeting

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Kornylak, Vera S.
Sent: Friday, August 31, 2018 7:05 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: SAB draft recommendations report and Chartered SAB Meeting

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Thursday, August 30, 2018 2:55 PM
To: Cole, Jefferson <Cole.Jefferson@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Elman, Barry <Elman.Barry@epa.gov>; Bird, Patrick <Bird.Patrick@epa.gov>; Moskal, John <Moskal.John@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Johnson, Terry <Johnson.Terry@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>; McFadden, Kelly <McFadden.Kelly@epa.gov>; Ceron, Heather <Ceron.Heather@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Moran, Robin <moran.robin@epa.gov>
Subject: FW: SAB draft recommendations report and Chartered SAB Meeting

Workgroup,

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

Looking for a speaker for your school or community event? <http://www.epa.gov/rtpspeakings/>

From: Ohrel, Sara
Sent: Wednesday, August 29, 2018 3:23 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>
Cc: Steller, John <Steller.John@epa.gov>
Subject: FW: SAB draft recommendations report and Chartered SAB Meeting

FYI

An updated SAB draft peer review recommendations report on the 2nd draft Biogenic CO2 Framework and a notice for a meeting of the Chartered SAB to discuss this draft report were [posted publicly](#) this afternoon. The draft report is attached and the Chartered SAB meeting is scheduled for September 26, 1-5pm

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sara Bushey Ohrel
Climate Change Division
U.S. Environmental Protection Agency
(202) 343-9712
ohrel.sara@epa.gov

***deliberative

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 10/5/2018 5:39:28 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Biomass sources
Attachments: TreatmentOfBiogenicCO2EmissionsInAirPermitting_TalkingPoints_10052018.docx

Vera,

This is the draft version of the paper. Thoughts?

Jessica

From: Kornylak, Vera S.
Sent: Thursday, October 04, 2018 10:29 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biomass sources

Jessica:

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Thursday, October 04, 2018 8:48 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biomass sources

Vera,

Ex. 5 Deliberative Process (DP)

Anything else you are interested in knowing?

Jessica

-----Original Message-----

From: Kornylak, Vera S.
Sent: Thursday, October 04, 2018 6:52 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Biomass sources

Jessica - let's touch base on this today.

Ex. 5 Deliberative Process (DP)

Thanks,
Vera

Vera Kornylak
OAQPS/AQPD
919-541-4067
kornylak.vera@epa.gov

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 10/17/2018 6:57:26 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Montanez, Jessica [Montanez.Jessica@epa.gov]; Long, Pam [Long.Pam@epa.gov]
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

From: Kornylak, Vera S.
Sent: Wednesday, October 17, 2018 2:51 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Montanez, Jessica <Montanez.Jessica@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Vetter, Cheryl
Sent: Wednesday, October 17, 2018 2:47 PM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

From: Montanez, Jessica
Sent: Wednesday, October 17, 2018 2:40 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

FYI.. The rule was in the spring and fall reg agenda but in the long term actions area, **Ex. 5 Deliberative Process (DP)**
Ex. 5 Deliberative Process (DP) The link for the long term actions for this particular rule is the following:
<https://www.reginfo.gov/public/Forward?SearchTarget=Agenda&textfield=treatment+of+biogenic+co2>

Jessica

From: Vetter, Cheryl
Sent: Wednesday, October 17, 2018 2:32 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Montanez, Jessica <Montanez.Jessica@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

From: Kornylak, Vera S.
Sent: Wednesday, October 17, 2018 2:29 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Montanez, Jessica <Montanez.Jessica@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Vetter, Cheryl
Sent: Wednesday, October 17, 2018 2:28 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Montanez, Jessica <Montanez.Jessica@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

From: Kornylak, Vera S.
Sent: Wednesday, October 17, 2018 2:27 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Montanez, Jessica <Montanez.Jessica@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: Re: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ex. 5 Deliberative Process (DP)

Vera Kornylak
OAQPS/AQPD
919-541-4067
kornylak.vera@epa.gov

On Oct 17, 2018, at 2:23 PM, Vetter, Cheryl <Vetter.Cheryl@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

From: Kyle Harris [mailto:kharris@corn.org]

Sent: Wednesday, October 17, 2018 2:04 PM

To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

Ms. Vetter,

"Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs" was on EPA's Spring 2018 Regulatory Agenda and was not mentioned at all on the Fall 2018 Regulatory Agenda.

I was wondering if you could elaborate on why this important issue continues to be punted and go unaddressed. I am reaching out as you are listed as an agency contact.

Best,

Kyle

Kyle A. Harris

Director, Environmental Affairs & Workplace Safety

image001.png>

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<image002.gif>

Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 10/4/2018 3:29:02 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Biomass sources

Ex. 5 Deliberative Process (DP)

Jessica

From: Kornylak, Vera S.
Sent: Thursday, October 04, 2018 10:29 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biomass sources

Jessica:

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica
Sent: Thursday, October 04, 2018 8:48 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biomass sources

Vera,

Ex. 5 Deliberative Process (DP)

Jessica

-----Original Message-----

From: Kornylak, Vera S.
Sent: Thursday, October 04, 2018 6:52 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Biomass sources

Jessica - let's touch base on this today.

Ex. 5 Deliberative Process (DP)

Thanks,
Vera

Vera Kornylak
OAQPS/AQPD
919-541-4067
kornylak.vera@epa.gov

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 2/7/2019 2:50:18 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Spangler, Matthew [Spangler.Matthew@epa.gov]
Subject: RE: biomass check in
Attachments: BiogenicCO2EmissionsinAirPermittingBriefingPaper_12212018.docx

Vera-

Ex. 5 Deliberative Process (DP)

Sarah

From: Kornylak, Vera S.
Sent: Wednesday, February 06, 2019 4:01 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Spangler, Matthew <Spangler.Matthew@epa.gov>
Subject: biomass check in

Hi,

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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Message

From: Montanez, Jessica [Montanez.Jessica@epa.gov]
Sent: 9/17/2018 2:24:57 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Treatment of Biogenic CO2 Emissions in CAA Permitting Informational Meeting

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407
Note: Positions or views expressed here do not represent official EPA policy.

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From: Kornylak, Vera S.
Sent: Monday, September 17, 2018 10:15 AM
To: Montanez, Jessica <Montanez.Jessica@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Re: Treatment of Biogenic CO2 Emissions in CAA Permitting Informational Meeting

Ex. 5 Deliberative Process (DP)

Does that sound good to you?

Vera

Vera Kornylak
OAQPS/AQPD
919-541-4067
kornylak.vera@epa.gov

On Sep 17, 2018, at 10:02 AM, Montanez, Jessica <Montanez.Jessica@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711

Phone: 919-541-3407

Note: Positions or views expressed here do not represent official EPA policy.

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From: Kornylak, Vera S.

Sent: Monday, September 17, 2018 8:56 AM

To: Montanez, Jessica <Montanez.Jessica@epa.gov>

Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: RE: Treatment of Biogenic CO2 Emissions in CAA Permitting Informational Meeting

Hi Jessica, yes I think just send out a message explaining the briefing was scheduled and we'll need to

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Montanez, Jessica

Sent: Monday, September 17, 2018 7:59 AM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: RE: Treatment of Biogenic CO2 Emissions in CAA Permitting Informational Meeting

Vera,

The meeting with Wehrum on biogenic CO2 was scheduled for Wednesday afternoon.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Jessica

Jessica Montañez
Office of Air Quality Planning and Standards
Air Quality Policy Division
New Source Review Group
109 TW Alexander Drive MD: C504-03 RTP, NC 27711
Phone: 919-541-3407

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-----Original Appointment-----

From: Wehrum, Bill

Sent: Friday, September 14, 2018 4:49 PM

To: Wehrum, Bill; Harlow, David; Dominguez, Alexander; Lewis, Josh; Woods, Clint; Tsirigotis, Peter; Koerber, Mike; Harnett, Bill; Wood, Anna; Kornylak, Vera S.; Vetter, Cheryl; Montanez, Jessica; Schwab, Justin; Srinivasan, Gautam; Zenick, Elliott; Doster, Brian; Orlin, David; Dunham, Sarah; Krieger, Jackie; Gunning, Paul; Kocchi, Suzanne; Irving, Bill; Fawcett, Allen; Birnbaum, Rona; Grundler, Christopher; Charmley, William; Simon, Karl; Lie, Sharyn; Johnson, Yvonne W; Long, Pam; Massey, Lana

Subject: Treatment of Biogenic CO2 Emissions in CAA Permitting Informational Meeting

When: Wednesday, September 19, 2018 2:30 PM-3:15 PM (UTC-05:00) Eastern Time (US & Canada).

Where: WJC - N 5400 + Video with RTP and AA + 202-991-0477 + 680-2581

TO: Bill Wehrum, David Harlow, Alex Dominguez, Josh Lewis, Clint Woods, Peter Tsirigotis, Mike Koerber, Bill Harnett, Anna Wood, Vera Kornylak, Cheryl Vetter, Jessica Montanez, Justin Schwab, Gautam Srinivasan, Elliott Zenick, Brian Doster, David Orlin, Sarah Dunham, Jackie Krieger, Paul Gunning, Suzanne Kocchi, Bill Irving, Allen Fawcett, Rona Birnbaum, Chris Grundler, Bill Charmely, Karl Simon, Sharyn Lie

<< Message: Wehrum Meeting Request: Biogenic meeting for Wed 9/19 >>

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 2/12/2019 6:50:04 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Spangler, Matthew [Spangler.Matthew@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Biomass meeting w/ Bill tomorrow
Attachments: BiogenicCO2EmissionsinAirPermittingBriefingPaper_02132019.docx

Vera-

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Let me know if you think any other edits

are needed. Thanks!
Sarah

From: Kornylak, Vera S.
Sent: Tuesday, February 12, 2019 12:51 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Cc: Spangler, Matthew <Spangler.Matthew@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: FW: Biomass meeting w/ Bill tomorrow

Sarah: Ex. 5 Deliberative Process (DP) We can plan on sending
the paper Ex. 5 Deliberative Process (DP) y.

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Greenglass, Nora
Sent: Tuesday, February 12, 2019 12:45 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Spangler, Matthew <Spangler.Matthew@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Biomass meeting w/ Bill tomorrow

Thanks, Vera.

Ex. 5 Deliberative Process (DP)

From: Kornylak, Vera S.
Sent: Tuesday, February 12, 2019 12:07 PM
To: Greenglass, Nora <Greenglass.Nora@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>
Cc: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Spangler, Matthew <Spangler.Matthew@epa.gov>; Baker, Sarah

<baker.sarah@epa.gov>

Subject: FW: Biomass meeting w/ Bill tomorrow

Hi Nora and Brian:

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Kornylak, Vera S.

Sent: Tuesday, February 12, 2019 12:04 PM

To: Kocchi, Suzanne <Kocchi.Suzanne@epa.gov>; Irving, Bill <Irving.Bill@epa.gov>; Gunning, Paul <Gunning.Paul@epa.gov>

Cc: Culligan, Kevin <Culligan.Kevin@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Fawcett, Allen <Fawcett.Allen@epa.gov>; Spangler, Matthew <Spangler.Matthew@epa.gov>; Wood, Anna <Wood.Anna@epa.gov>

Subject: Biomass meeting w/ Bill tomorrow

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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Message

From: Long, Pam [Long.Pam@epa.gov]
Sent: 8/16/2019 11:49:03 AM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Miller, Patricia [Miller.Patricia@epa.gov]; Massey, Lana [massey.lana@epa.gov]
Subject: New Control -- CMS New Assignment - Governors of Iowa, Indiana, Kentucky, Nebraska and North Dakota - Regulatory Reform Clarifying that Biogenic CO2 Emission From Processing and use of Agriculture Feedstock - AL-19-000-7297 - Due 8/20
Attachments: Cover Sheet AL-19-000-7297.pdf; Incoming AL-19-000-7297 - Governors Letter on CO2.pdf
Importance: High

Ex. 5 Deliberative Process (DP)

-----Original Message-----

From: cmsadmin@epa.gov <cmsadmin@epa.gov>
Sent: Friday, August 16, 2019 7:11 AM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Miller, Patricia <Miller.Patricia@epa.gov>; Massey, Lana <massey.lana@epa.gov>
Subject: CMS New Assignment - Jenny Noonan - AL-19-000-7297

Ex. 5 Deliberative Process (DP)

Summary Information -
Control Number: AL-19-000-7297
Control Subject: PRIORITIZE REGULATORY REFORM CLARIFYING THAT BIOGENIC CO2 EMISSIONS FROM PROCESSING AND USE OF AGRICULTURAL FEEDSTOCK
From: Reynolds, Kim; Holcomb, Eric; Bevin, Matt; Ricketts, Pete; Burgum, Doug

Ex. 5 Deliberative Process (DP)

Message

From: Ashley, Jackie [Ashley.Jackie@epa.gov]
Sent: 5/10/2019 12:17:09 PM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
CC: Baker, Sarah [baker.sarah@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: RE: CONGRESS: Biomass and carbon neutral

Hi Cheryl - Yes. This language is all public and would be a good basis for talking points. **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Thanks for checking!

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Vetter, Cheryl
Sent: Thursday, May 09, 2019 4:46 PM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Cc: Baker, Sarah <baker.sarah@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: CONGRESS: Biomass and carbon neutral

Jackie –

Ex. 5 Deliberative Process (DP)

Thanks.

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Ashley, Jackie
Sent: Monday, May 06, 2019 8:21 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: CONGRESS: Biomass and carbon neutral

FYI – Below is the final TA sent to Sen. Collins’ staff on biomass after OAR IO review. It includes additional background about status.

In April 2018, EPA issued a policy statement announcing that EPA’s policy in forthcoming regulatory actions and in various programmatic contexts will be to treat biogenic CO₂ emissions resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral. In November 2018, EPA, USDA, and DOE sent a letter to the Senate and House Committees on Appropriations describing the agencies’ work to ensure consistent federal policy on forest biomass energy and promote clear policies that encourage the treatment of forest biomass as a carbon-neutral renewable energy solution.

EPA is examining several opportunities to further address the treatment of biogenic CO2 emissions from biomass. To that end, the Agency assembled an internal workgroup in May 2018, and the group has identified a number of regulatory and non-regulatory options the Agency may pursue in 2019 and 2020. For example, the Agency may seek opportunities, in related rulemakings or site-specific determinations, to build upon the April 2018 policy statement. The Agency is also still evaluating recent, related advice from its Science Advisory Board on related science-policy issues. EPA is also evaluating the potential to pursue revisions to its 2011 Guidance for Determining Best Available Control Technology for Reducing CO2 Emissions from Bioenergy Production as well as rulemaking to revise relevant Prevention of Significant Deterioration or New Source Review regulations to address, clarify, or remove biogenic CO2 from combustion of biomass from certain requirements. We expect the Agency to propose related changes this year.

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Kornylak, Vera S.
Sent: Monday, April 29, 2019 8:58 AM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: CONGRESS: Biomass and carbon neutral

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Ashley, Jackie
Sent: Monday, April 29, 2019 8:48 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: CONGRESS: Biomass and carbon neutral

Good morning, Vera --

Senator Collins is asking OCIR for any additional information we can provide about the biomass neutrality rule. Basically what was referred to in the April HAC hearing:

SIMPSON:

First question, a serious question. Well, they're all serious. In the past several final appropriations bill there has been a language that directed the EPA to consult with Forest Service and DOE, to provide clarity on rule that defines biomass as carbon neutral. This is important as trees are key in carbon sequestration. Almost a year ago, the EPA issues a policy statement that seemed to align with the language. Can you update this subcommittee on further steps the EPA has taken to follow the language included in the appropriations bills?

WHEELER:

We are working on that. We hope to have a proposal out this summer. It's a little more difficult than what we originally anticipated. Its taking some time. But we are moving forward with that. And we intend to have something out this summer.

Ex. 5 Deliberative Process (DP)

Message

From: Wood, Anna [Wood.Ann@epa.gov]
Sent: 11/27/2018 7:44:24 PM
To: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
CC: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Re: December 13 Biomass and NSR

Ex. 5 Deliberative Process (DP)

Sent from my iPhone

On Nov 27, 2018, at 2:38 PM, Johnson, Yvonne W <Johnson.Yvonnew@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Wood, Anna
Sent: Tuesday, November 27, 2018 2:36 PM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: Re: December 13 Biomass and NSR

Ex. 5 Deliberative Process (DP)

Sent from my iPhone

On Nov 27, 2018, at 1:48 PM, Johnson, Yvonne W <Johnson.Yvonnew@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Wood, Anna
Sent: Tuesday, November 27, 2018 1:46 PM
To: Johnson, Yvonne W <johnson.yvonnew@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: Re: December 13 Biomass and NSR

Ok thx

Sent from my iPhone

On Nov 27, 2018, at 1:29 PM, Johnson, Yvonne W <johnson.yvonnew@epa.gov> wrote:

I have sent Tim a note confirming 10-11 on 12/13 but have not heard back from him yet.

Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Wood, Anna
Sent: Tuesday, November 27, 2018 1:22 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Johnson, Yvonne W <johnson.yvonnew@epa.gov>
Subject: Re: December 13 Biomass and NSR

Ex. 5 Deliberative Process (DP)

Sent from my iPhone

On Nov 27, 2018, at 12:45 PM, Kornylak, Vera S.
<Kornylak.Vera@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Senior Policy Advisor
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Wood, Anna
Sent: Monday, November 26, 2018 4:29 PM
To: Santiago, Juan <Santiago.Juan@epa.gov>; Rao, Raj <Rao.Raj@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: FW: December 13 Biomass and NSR

Ex. 5 Deliberative Process (DP)

From: Wood, Anna
Sent: Monday, November 26, 2018 4:25 PM
To: 'Hunt, Tim' <Tim_Hunt@afandpa.org>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Bradfield, John <Bradfield.John@epa.gov>
Subject: RE: December 13 Biomass and NSR

Hi Tim, hope you had a good Thanksgiving as well. I will check with our permitting folks to see what time might be available on Dec 13th—thx

From: Hunt, Tim <Tim_Hunt@afandpa.org>
Sent: Monday, November 26, 2018 4:21 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Wood, Anna <Wood.Anna@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Bradfield, John <Bradfield.John@epa.gov>
Subject: December 13 Biomass and NSR

Vera and Anna,

Thanks again for meeting with us last week to discuss biomass issues. We agree that not much will change between now and December 13th so no need for another conversation at that time but instead look ahead to early in the New Year.

Since we had the 11 to 1 PM time slot reserved, I would like to propose we use some of that time to talk about other NSR and permitting improvements going into 2019. We have some ideas and refinements of our own and would of course like to hear more details on your regulatory plans on topics such as: commence construction, RMRR, ambient air, debottlenecking, actual to projected actual and netting step II. Please add to the list.

Would you be able to meet from 10 until 11:45 PM on Thursday, December 13th?

I hope you had a nice Thanksgiving break.

Timothy Hunt
Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

Message

From: Baker, Sarah [baker.sarah@epa.gov]
Sent: 2/12/2019 4:56:15 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Spangler, Matthew [Spangler.Matthew@epa.gov]
Subject: Biogenic CO2 Briefing Paper
Attachments: BiogenicCO2EmissionsinAirPermittingBriefingPaper_02132019.docx

Vera-

Attached is the revised briefing paper [Ex. 5 Deliberative Process (DP)]

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Ex. 5 Deliberative Process (DP)

Subject: FW: Updated draft of the Enviro Call Agenda

Ex. 5 Deliberative Process (DP)

From: Lewis, Josh <Lewis.Josh@epa.gov>

Sent: Thursday, May 07, 2020 7:53 AM

Ex. 5 Deliberative Process (DP)

Subject: Updated draft of the Enviro Call Agenda

Updated agenda below, with new requests (all from Vickie Patton) in red. Call or email if you have any questions before noon. Otherwise, talk to many of you then.

- SPPD (David/Kevin except where noted)
 - Highlight updates, if any, on the following items:
 - Update on timeline for finalizing the 111(b) proposal for GHGs from power plants
 - Update on the Oil and Gas Policy and Technical packages
 - Answer any questions on recent MATS-related actions

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

- Update on rulemakings addressing ethylene oxide

Ex. 5 Deliberative Process (DP)

- AQAD (Chet)
 - Update on ambient air monitoring during COVID-19
- HEID (Erika)
 - Update on public hearing for the PM proposal (we're going to hear from them the importance of an extension of the public comment period)
 - Likely timing of the ozone NAAQS proposal
- AQPD (Scott)
 - Provide latest updates on biogenic CO2
 - Timing of the 179B policy
 - **Ex. 5 Deliberative Process (DP)**
 - NSR: draft "Begin Actual Construction" guidance is out for public review, with a comment deadline of May 11.

Ex. 5 Deliberative Process (DP)

Sent: 5/7/2020 1:18:00 PM
To: Lewis, Josh [Lewis.Josh@epa.gov]

Ex. 5 Deliberative Process (DP)

Subject: RE: Updated draft of the Enviro Call Agenda

Here are the talking points

Ex. 5 Deliberative Process (DP)

Provide latest updates on biogenic CO2

- Proposal went to OMB 2/24/2020
- Expect a published proposal late spring 2020
- **Background Information**
 - Consolidated Appropriations Act (FY2017-FY2020) outlines how EPA and other agencies are to establish consistent policies regarding the use of forest biomass for energy production, including policies that reflect the carbon-neutrality of forest bioenergy
 - April 2018 EPA policy statement: Forthcoming regulatory actions will treat biogenic CO₂ resulting from the combustion of biomass from managed forests at stationary sources for energy production as carbon neutral

FIP schedule for the 2015 ozone NAAQS

- Transport SIPs were due October 2018.
 - Received 46 good neighbor SIPs so far and EPA has taken some action on 18 of them.
 - We made FFS on November 22, 2019 for 7 states (ME, NM, **PA**, RI, SD, UT, **VA**)
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- Other 2015 O3 SIP Deadlines
 - Infrastructure SIPs were due October 2018.
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- Attainment plans for Moderate nonattainment areas are due August 2021
- Attainment plans for Serious/Severe/Extreme nonattainment areas are due August 2022

Timing of Section 179B Guidance Ex. 5 Deliberative Process (DP)

- Title: "DRAFT Guidance on the Preparation of Clean Air Act Section 179B Demonstrations for Nonattainment Areas Affected by International Transport of Emissions" out for comment January 2020. <https://www.epa.gov/ground-level-ozone-pollution/international-transport-air-pollution>
- EPA accepted feedback on the draft guidance through March 10, 2020; opened a comment Docket ID No. EPA-HQ-OAR-2019-0668. 15 comments received.
- Working to finalize draft Technical Guidance, staff are wrapping up their review of all comment letters. Schedule has been revised but still plan to finalize in late summer, depending on OMB significance/review.
- **International Impacts Activity (Background Only)**
 - Imperial County – Ozone final action was challenged 4/27. PM action may not move forward Ex. 5 Deliberative Process (DP)
 - Staff met with Canada in April to discuss planned study for Detroit/Ontario area and how it could supplement MI's potential retrospective section 179B demo. (Focus is on VOC emissions)
 - Bexar County – Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

NSR: draft "Begin Actual Construction" guidance is out for public review, with a comment deadline of May 11.

- Title: "Interpretation of "Begin Actual Construction" Under the New Source Review Preconstruction Permitting Regulations"
- Policy addresses what sources can legally do at a site to "begin actual construction" of a major source or major modification without first obtaining a major NSR permit

- Guidance explores flexibilities under the existing rule language that would allow certain non-emitting activities to be undertaken prior to obtaining a permit
- Draft guidance memo posted for 45-day comment 3/25/2020 to the following email address: draft_permitting_guidance@epa.gov; comment ends May 11. Final guidance anticipated – Fall 2020

Scott Mathias | Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Lewis, Josh <Lewis.Josh@epa.gov>

Sent: Thursday, May 07, 2020 7:53 AM

Ex. 5 Deliberative Process (DP)

Subject: Updated draft of the Enviro Call Agenda

Updated agenda below, with new requests (all from Vickie Patton) in red. Call or email if you have any questions before noon. Otherwise, talk to many of you then.

- SPPD (David/Kevin except where noted)
 - Highlight updates, if any, on the following items:
 - Update on timeline for finalizing the 111(b) proposal for GHGs from power plants
 - Update on the Oil and Gas Policy and Technical packages
 - Answer any questions on recent MATS-related actions
 - Ex. 5 Deliberative Process (DP)
 - Ex. 5 Deliberative Process (DP)
 - Ex. 5 Deliberative Process (DP)
 - Update on rulemakings addressing ethylene oxide
 - Ex. 5 Deliberative Process (DP)
- AQAD (Chet)
 - Update on ambient air monitoring during COVID-19
- HEID (Erika)
 - Update on public hearing for the PM proposal (we're going to hear from them the importance of an extension of the public comment period)
 - Likely timing of the ozone NAAQS proposal
- AQPD (Scott)
 - Provide latest updates on biogenic CO2
 - Timing of the 179B policy
 - Ex. 5 Deliberative Process (DP)
 - Ex. 5 Deliberative Process (DP)
 - NSR: draft "Begin Actual Construction" guidance is out for public review, with a comment deadline of May 11.

Appointment

From: Johnson, Yvonne W [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7CCB32E11044489D9D95A43E823300AD-YJOHNSON]
Sent: 8/8/2019 6:49:17 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]; Doster, Brian [Doster.Brian@epa.gov]; Greenglass, Nora [Greenglass.Nora@epa.gov]; Ohrel, Sara [Ohrel.Sara@epa.gov]; Steller, John [Steller.John@epa.gov]; Fawcett, Allen [Fawcett.Allen@epa.gov]; Gunning, Paul [Gunning.Paul@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]; **Ex. 6 Personal Privacy (PP)** AQAD/Phone-Line/RTP-OAQPS-BLDG-C [**Ex. 6 Personal Privacy (PP)**]-AQAD@epa.gov]
CC: Irving, Bill [Irving.Bill@epa.gov]
BCC: RTP-OAQPS-C501A/RTP-OAQPS-BLDG-C [RTP-OAQPS-C501A@epa.gov]
Subject: AF&PA Discussion on Biogenic CO2/PSD [**Ex. 6 Personal Privacy (PP)**]
Location: WJCS 4232D, RTP-OAQPS-C501A/RTP-OAQPS-BLDG-C/
Start: 9/4/2019 2:00:00 PM
End: 9/4/2019 3:00:00 PM
Show Time As: Busy

Purpose: Discuss with Tim Hunt and other AF&PA associates the Biogenic CO2/PSD rule. AF&PA will meet in DC with OGC and OAP. OAQPS/RTP will be tied in via phone line.

DC POC: John Steller
RTP POC: Yvonne Johnson

Appointment

From: Campbell, Ann [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B8C25A0C2FB648B6A947694A8492311E-CAMPBELL, ANN]
Sent: 9/18/2019 1:47:16 PM
To: Idsal, Anne [idsal.anne@epa.gov]; Woods, Clint [woods.clint@epa.gov]; Harlow, David [harlow.david@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Fawcett, Allen [Fawcett.Allen@epa.gov]; Irving, Bill [Irving.Bill@epa.gov]; Ohrel, Sara [Ohrel.Sara@epa.gov]; Tsirigotis, Peter [Tsirigotis.Peter@epa.gov]; Koerber, Mike [Koerber.Mike@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Baker, Sarah [baker.sarah@epa.gov]; Leopold, Matt (OGC) [Leopold.Matt@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Srinivasan, Gautam [Srinivasan.Gautam@epa.gov]; Doster, Brian [Doster.Brian@epa.gov]; Greenglass, Nora [Greenglass.Nora@epa.gov]; Bolen, Brittany [bolen.brittany@epa.gov]; Elman, Barry [Elman.Barry@epa.gov]; Dunham, Sarah [Dunham.Sarah@epa.gov]
CC: Sorrels, Larry [Sorrels.Larry@epa.gov]; Dominguez, Alexander [dominguez.alexander@epa.gov]; Gunning, Paul [Gunning.Paul@epa.gov]
Subject: Biogenic CO2 Rulemaking follow-up
Attachments: Help with two meetings next week
Location: WJC - N 5400 + Video with **Ex. 6 Personal Privacy (PP)**
Start: 9/18/2019 5:30:00 PM
End: 9/18/2019 6:30:00 PM
Show Time As: Busy



Help with two
meetings next w...

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 1/22/2020 8:45:14 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]
Subject: RE: Signed 1-7-20 - CMS AX-20-000-1832 - Bode - Biogenic CO2 Coalition

Ex. 5 Deliberative Process (DP)

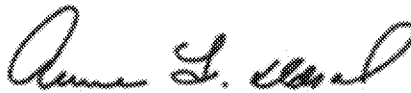
Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Mathias, Scott <Mathias.Scott@epa.gov>
Sent: Wednesday, January 22, 2020 3:22 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Signed 1-7-20 - CMS AX-20-000-1832 - Bode - Biogenic CO2 Coalition

Ex. 5 Deliberative Process (DP)

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Scott Mathias in the EPA's Office of Air Quality Planning and Standards at mathias.scott@epa.gov or at (919) 541-5310.

Sincerely,



Anne L. Ildal

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310
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-----Original Message-----

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Wednesday, January 22, 2020 2:33 PM
To: Mathias, Scott <Mathias.Scott@epa.gov>
Subject: FW: Signed 1-7-20 - CMS AX-20-000-1832 - Bode - Biogenic CO2 Coalition

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

-----Original Message-----

From: Long, Pam <Long.Pam@epa.gov>
Sent: Thursday, January 09, 2020 7:15 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Baker, Sarah <baker.sarah@epa.gov>
Subject: Signed 1-7-20 - CMS AX-20-000-1832 - Bode - Biogenic CO2 Coalition

See attachment. Thanks.

-----Original Message-----

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Monday, December 30, 2019 9:31 AM
To: Long, Pam <Long.Pam@epa.gov>
Cc: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: CMS New Assignment - Jenny Noonan - AX-20-000-1832

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

-----Original Message-----

From: Long, Pam <Long.Pam@epa.gov>
Sent: Monday, December 30, 2019 7:23 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: FW: CMS New Assignment - Jenny Noonan - AX-20-000-1832

This is the control due 12/31 from the Corn Refiners Assoc. and Biogenic CO2 Coalition -

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

-----Original Message-----

From: cmsadmin@epa.gov <cmsadmin@epa.gov>
Sent: Friday, December 13, 2019 3:09 PM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Miller, Patricia <Miller.Patricia@epa.gov>; Massey, Lana <massey.lana@epa.gov>
Subject: CMS New Assignment - Jenny Noonan - AX-20-000-1832

Control AX-20-000-1832 has been assigned to your office on 12/13/19 3:09 PM by Jenny Noonan. Please go to the CMS webpage to view the details of the control.

Summary Information -

Control Number: AX-20-000-1832

Control Subject: Reading File - Treatment of Biogenic CO2 Emissions Under the Clean Air Act Permitting Programs

From: Monahan, Eamon; Biogenic CO2 Coalition

Note: This Email was automatically generated. Please do not attempt to respond to it. You can access this control at <https://cms.epa.gov/cms>. Questions or comments concerning CMS should be directed to CMS Support at 202-564-4985 or CMS Information@epa.gov.

From: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Sent: 12/4/2019 4:23:28 PM
To:
Subject: RE: Updated agenda for Thursday's enviro call

Ex. 5 Deliberative Process (DP)

Hi Josh, sounds like you've got the biogenic CO2 rulemaking covered.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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From: Lewis, Josh <Lewis.Josh@epa.gov>
Sent: Wednesday, December 04, 2019 8:37 AM

Ex. 5 Deliberative Process (DP)

Subject: Updated agenda for Thursday's enviro call

Here's a proposed agenda, incorporating some additional topics I received

Ex. 5 Deliberative Process (DP)

- AQPD
 - NSR Updates
 - Ambient Air Guidance
 - Can EPA provide any substantive or logistical details on the biomass aspect of the NSR reform?
 - Can EPA provide any details about any rulemaking efforts that would expand or clarify the types of biomass (particularly woody biomass) that EPA intends to treat as "carbon neutral" and is there an expected timeline for these efforts?
- SPPD:
 - MATS: Pending SAB Review/Report and Timing of EPA's Action
 - Is EPA still on track to finalize the ACE NSR revision by March 2020?
 - Can EPA provide a more specific timeline for finalizing the 111(b) proposal for GHGs from power plants?
 - Can EPA provide an update on the 2018 LDAR proposal?

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

- HEID: PM & Ozone NAAQS review updates
 - Ozone and PM NAAQS: This week's CASAC meeting & EPA's next steps

Message

From: Long, Pam [Long.Pam@epa.gov]
Sent: 1/21/2020 12:24:39 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Subject: RE: 1st quarter accomplishments
Attachments: AQPD -1st Quarter Accomplishments 2020.xlsx

Sorry – here it is.

From: Mathias, Scott <Mathias.Scott@epa.gov>
Sent: Friday, January 17, 2020 3:36 PM
To: Long, Pam <Long.Pam@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: RE: 1st quarter accomplishments

Nothing was attached.

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Long, Pam <Long.Pam@epa.gov>
Sent: Friday, January 17, 2020 10:49 AM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Cc: Mathias, Scott <Mathias.Scott@epa.gov>
Subject: FW: 1st quarter accomplishments

This is what I have on my list for 1st quarter.

Ex. 5 Deliberative Process (DP) ; Deliberative Process (DP)

From: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Sent: Thursday, January 16, 2020 3:57 PM
To: Long, Pam <Long.Pam@epa.gov>
Subject: 1st quarter accomplishments

Ex. 5 Deliberative Process (DP)

Thanks.

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency

919-541-3921

johnson.yvonne@epa.gov

AQPD 1st Quarter 2020 Accomplishments - 10/1/19 - 12/31/19

	SAN	Action Title	Stage	Signer	Status
Controls					
Control	N/A	AL-20-000-1301 - Biogenic CO2 - 18 Senators	Final	AA Signature	Signed 12/10/19

Ex. 5 Deliberative Process (DP)

Message

From: Santiago, Juan [Santiago.Juan@epa.gov]
Sent: 9/4/2019 7:30:38 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]
Subject: FW: Updates NSR actions table
Attachments: NSR Improvements Overview Update 8-28-19.docx

NSR Improvement Projects Status Update
August 28, 2019

Phase 1 Ongoing NSR Actions

Project	Status	Target
<div>Ex. 5 Deliberative Process (DP)</div>		

NSR Improvement Projects Status Update
August 28, 2019

Phase 1 Ongoing NSR Actions

Project	Status	Target
Ex. 5 Deliberative Process (DP)		
Ex. 5 Deliberative Process (DP)	Ex. 5 AC/DP	TBD
	Ex. 5 AC/DP	

Phase 2 NSR Actions

Project	Status	Target
Ex. 5 Deliberative Process (DP)		

NSR Improvement Projects Status Update
August 28, 2019

Phase 2 NSR Actions

Project	Status	Target
<div>Ex. 5 Deliberative Process (DP)</div>		

NSR Improvement Projects Status Update
August 28, 2019

Appendix – Completed NSR Improvement Actions

Guidance: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability under NSR

- Issued December 7, 2017

• **Ex. 5 Deliberative Process (DP)**

Guidance: Reclassification of Major Sources as Area Sources under Section 112 of the CAA

- Issued January 25, 2018
- Withdrew the 1995 memo that established the “once in always in” policy under section 112

• **Ex. 5 Deliberative Process (DP)**

Guidance: Project Emissions Accounting Under the NSR Preconstruction Permitting Program

- Issued March 13, 2018
- Clarifies that the current NSR regulations provide for the accounting of both emissions increases and decreases under step 1 of the NSR applicability process

• **Ex. 5 Deliberative Process (DP)**

Guidance: Significant Impact Levels for Ozone and Fine Particles

- Issued April 17, 2018
- Guidance and supporting documents recommend SILs for ozone and fine particle pollution that may be used in the PSD permitting program

• **Ex. 5 Deliberative Process (DP)**

Guidance: Source Aggregation - Common Control

- **Common Control:** Issued two letters on April 30, 2018 (Meadowbrook) and October 16, 2018 (Ameresco) concerning “common control” aspect of source aggregation

• **Ex. 5 Deliberative Process (DP)**

Final Action: Project Aggregation Reconsideration

- Completed November 7, 2018
- Finalizes the 2010 reconsideration rule and lifts the stay of the 2009 final action on project aggregation

• **Ex. 5 Deliberative Process (DP)**

Message

From: Rao, Raj [Rao.Raj@epa.gov]
Sent: 10/21/2019 10:11:43 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]
CC: Santiago, Juan [Santiago.Juan@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Long, Pam [Long.Pam@epa.gov]
Subject: Latest NSR Project Tracker
Attachments: NSRG Project Tracker 102119.docx

Scott, attached is the latest NSR Projects Tracker

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Raj

Raj Rao, P.E.
Group Leader, New Source Review Group,
Air Quality Policy Division,
Office of Air Quality Planning and Standards (MD-C504-03)
US Environmental Protection Agency
919-541-5344

Note: Positions or views expressed here do not represent official EPA policy. Interagency
Deliberative and Confidential

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<div>Ex. 5 Deliberative Process (DP)</div>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					
Phase I Action Litigation Support					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
Ex. 5 Deliberative Process (DP)					
<u>Phase 2 Projects</u>					
Ex. 5 Deliberative Process (DP)					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
Ex. 5 Deliberative Process (DP)					
Ex. 5 Deliberative Process (DP)					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
Ex. 5 Deliberative Process (DP)					

Message

From: Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Sent: 7/12/2019 12:30:57 PM
To: Long, Pam [Long.Pam@epa.gov]
CC: Baker, Sarah [baker.sarah@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Mathias, Scott [Mathias.Scott@epa.gov]; Massey, Lana [massey.lana@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Subject: Idsal Meeting Request.docx
Attachments: Idsal Meeting Request.docx

Hi Pam: can you forward this up to the 4th floor per their request for meeting requests for the 7/24 meetings with Anne?

Ex. 5 Deliberative Process (DP)

Vera

Vera Kornylak || Acting Associate Director
Air Quality Policy Division || OAQPS
919-541-4067 || kornylak.vera@epa.gov

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<p align="center">[SEQ CHAPTER \h \r 1]OAR Meeting Request Form For Anne Idsal</p>

Date of this Request: 07/15/2019

Scheduling Point of Contact: Nina McKinney 919-541-5616

Technical Point of Contact: Scott Mathias 919-541-5310

Subject: Treatment of Biogenic CO2 emissions at stationary sources

Purpose: To discuss the next steps for a rulemaking Ex. 5 Deliberative Process (DP) the treatment of biogenic CO2 emissions.

- Next ADP Milestone:
- If applicable, due date to: OP __/__/__ (days review); OMB: __/__/__ (days review);
- Legal deadline: (specify court-ordered, settle agreement, court promise, etc.) due date __/__/__;
- Other firm deadline:

First possible date for meeting: 07/24/2019

Last possible date for meeting: 07/24/2019

Duration: 1 hour

Requested Audio / Video (*Mark with "X" if requested*)

_____ **Video Location(s):**

List video locations needed (e.g., RTP, DC, Regions)– HQ will set up a bridge if needed

_____ **HQ Conference Line:**

If requested, HQ staff will provide in meeting invite

Invitees (please list by Office and in Outlook format, e.g. *Last, First*):

<u>Office/Org</u>	<u>Name (<i>Last, First</i>)</u>
OAR	Harlow, David; Lewis, Josh
OAQPS:	Tsirigotis, Peter; Koerber, Mike; Harnett, Bill; Mathias, Scott; Kornylak, Vera; Vetter, Cheryl; Baker, Sarah; Svendsgaard, Dave; Spangler, Matthew
OGC	Srinivasan, Gautam; Zenick, Elliott; Doster, Brian; Greenglass, Nora; Krallman, John
OAP	Dunham, Sarah; Fawcett, Allen; Irving, Bill; Kocchi, Suzanne; Gunning, Paul; Steller, John; Ohrel, Sara
Schedulers to Cc:	Massey, Lana; Johnson, Yvonnew; Long, Pam

HQ Meeting Briefing Materials: Must provide to OAQPS IO by 5:00pm, 2 days before meeting

Revised 5/2019

Message

From: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Sent: 7/18/2019 2:27:28 PM
To: Mathias, Scott [Mathias.Scott@epa.gov]
Subject: FW: Enviva Call
Attachments: Working Paper -- Woody Biomass.DOCX

fyi

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Baker, Sarah
Sent: Thursday, June 27, 2019 8:38 AM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Enviva Call

I thought I would share some key takeaways from yesterday's call with Enviva. Many of these thoughts are also included in their write up that I forwarded yesterday and have attached here.

Company Background

- Company's biggest market is in Europe; they export 100% since there is no US market.
- The Asian market is expanding, specifically Japan and South Korea
- Their first US mill was opened in 2011. The company will be doubling capacity in the next 24-36 months (Ex. 5 Deliberative Process (DP))
- Contracts are being signed that can't be supplied yet, so for every pellet produced, there is already a customer.

Issues

- The EU treats biomass sourced from managed forests as carbon neutral. Starting in 2021, for those countries that are not part of the Paris Agreement, i.e. the US, biomass sourced from the US will not automatically be carbon neutral.
- To maintain the EU market, the US will need to have standards to show the company is sourcing from a managed forest.
- An exemption of all biomass under PSD would not help, and statements from the administrator or congress are not helpful in the international marketplace.
- There needs to be a recognized government body in the US that shows there are technical standards that the company can meet to justify the carbon neutrality of their product.
 - They believe this could be satisfied with voluntary programs (Ex. 5 Deliberative Process (DP))
 - May also be satisfied in PSD if there is a framework (Ex. 5 Deliberative Process (DP))
 - The idea of state programs was discussed, however, this presents some difficulty since a mill in VA may source from NC so a state by state patchwork approach may not work. A regional state policy may be better.

Next Steps

- They company will engage with USDA and other agencies. (Ex. 5 Deliberative Process (DP))

If you'd like to discuss further or want more details, just let me know. Thanks!
Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Working Paper
Clarification on Carbon Neutrality of Woody Biomass for Energy Production

Overview

Domestically sourced woody biomass can play a critical role in reducing the carbon intensity of the electricity sector. Sustainably sourced woody biomass is a renewable energy source that can provide baseload power to complement intermittent sources of electricity such as wind and solar. However, adoption of biomass-based energy in the U.S. has been slow due in part to a lack of clarity regarding the carbon benefits of electricity generated through the utilization of woody biomass.

EPA can unlock an important source of carbon neutral energy and encourage greater use of woody biomass for energy production in the United States by identifying those “managed forests” from which woody biomass sourced for energy production will be considered carbon neutral.

Encouraging Greater Adoption of Biomass for Energy Production

There is consensus of science and public policy – both domestically and internationally – that sustainably sourced woody biomass enables electric utilities to substantially reduce the lifetime greenhouse gas emissions of power generation.

- Congress has repeatedly instructed EPA, the Department of Energy, and the Department of Agriculture to establish policies that reflect that sustainably sourced biomass is a carbon-neutral renewable energy source.¹
- In April 2018, EPA issued a policy memorandum stating it will treat the combustion of woody biomass sourced from managed forests at stationary sources for energy production as carbon-neutral.²
- Today, the benefits of woody biomass are readily acknowledged by countries around the world, including the European community (which includes Belgium, Denmark, France, the Netherlands, Sweden, and the United Kingdom), Japan, South Korea, Turkey, parts of the United States, and the Caribbean. Additionally, international organizations like the International Renewable Energy Agency (IRENA) have demonstrated the key role that biomass can play in achieving carbon neutrality through reports such as IRENA’s 2050 roadmap.³

¹ Consolidated Appropriations Act, 2018 (H.R. 1625), signed March 23, 2018, [[HYPERLINK "https://www.congress.gov/115/bills/hr1625/BILLS-115hr1625enr.pdf"](https://www.congress.gov/115/bills/hr1625/BILLS-115hr1625enr.pdf)]

² EPA’s Treatment of Biogenic Carbon Dioxide (CO₂) Emissions from Stationary Sources that Use Forest Biomass for Energy Production, [[HYPERLINK "https://www.epa.gov/sites/production/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf"](https://www.epa.gov/sites/production/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf)]

³ International Renewable Energy Agency’s Global Energy Transformation: A Roadmap to 2050 (2019 Edition). In highlighting the critical role that biomass plays in the global energy transition, the report calls for the share of modern biomass electricity generation to increase from 5% to 16%, tripling bioenergy deployment, by 2050.

By developing a streamlined approach for identifying renewable and carbon-neutral woody biomass sourced from managed forests, EPA will be providing power producers with the certainty they need to determine the carbon benefits of biomass projects and assess the long-term fuel supply availability of their feedstock to support required investments.⁴

EPA clarification of this matter will serve to encourage the adoption of biomass energy domestically, and it will also provide the framework under which other countries source U.S.-produced biomass. The European Union, which has long recognized the carbon benefits of woody biomass, recently published its Renewable Energy Directive II (REDII), which treats biomass sourced from managed forests as carbon-neutral. On or before June 30, 2021, forests located in countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement and have emissions policies governing the Land Use, Land-Use Change, and Forestry (LULUCF) sector are deemed to be “managed.” However, forests from countries that are not parties to the Paris Agreement, such as the United States is considering, must demonstrate that “management systems are in place at the forest sourcing area level to ensure that carbon stocks and sinks levels in the forest are maintained, or strengthened, over the long term.”⁵ Power producers, environmental groups, and biomass suppliers are now seeking to develop standards and third-party certification processes to ensure that biomass from the United States can continue to be used to meet the EU’s climate goals. As this process continues, they will also look to EPA for guidance.

The Carbon-Neutrality of Woody Biomass Should be Based on the Carbon Stock of the Forest Landscape

In order to provide the clarity and certainty necessary to promote the appropriate use of biomass for electricity generation, EPA should develop the standards by which woody biomass can be certified as carbon-neutral. Third-party certification systems can measure and certify data for compliance purposes. Appropriate third-party certification organizations, such as the Sustainable Biomass Program (SBP), could be adapted and then utilized to verify the underlying carbon stock data to support this approach.

Consistent with the approach taken by international organizations, these standards should define a managed forest as one where levels of carbon stocks in forest landscapes are maintained, or strengthened, over time. This approach captures an important dynamic – that as harvests occur in one portion of the landscape, the other parts of the landscape are in various stages of replanting and regrowth. Additionally, this approach is supported by research that demonstrates that

⁴ As EPA recognized in its proposed rulemaking, *Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units*, some states and affected sources may be interested in using biomass to reduce the emission rate of affected sources and comply with state-determined performance standards. 83 Fed. Reg. 44,746, 44,765 (Aug. 31, 2018).

⁵ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, (pg. 51 – Art. 29, 7.b), [HYPERLINK "<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001&from=EN>"]

economic harvest of sustainably managed forests results in forest retention and growth that enhances the carbon stocks of forests.

The EPA program can be implemented by relying on empirical measurements of carbon stocks within a given landscape, which stocks are then monitored on a scheduled frequency for changes with appropriate baselines, tools and data.

- *Data Source for Forest Carbon Stock* –The USDA’s comprehensive Forest Inventory Analysis program, implemented by the U.S. Forest Service in partnership with states, is the appropriate and most robust dataset to measure carbon stocks and determine changes in stocks over a defined period of time and landscape. This program currently tracks and reports the national carbon stock of U.S. forest regions on a 5-year rolling basis with county-level detail. This approach was previously proposed by EPA.⁶
- *Geographic Area of Measurement* – The geographic area for measurement should be a contiguous regional landscape, *e.g.* the Southeast United States, not individual forest stands. A landscape-level accounting approach would comprehensively monitor the carbon stock of forests where sustainable biomass is sourced in accordance with how these forests are managed and would capture the broader trends in those forests. This regional approach is consistent with EPA’s 2011 proposed Accounting Framework for Biogenic CO₂ Emissions from Stationary Sources.⁷ There should be five geographic areas of measurement: the North Region, South Region, Intermountain Region, and the Pacific Coast/Northwest Region. The North Region should be comprised of the states of Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, West Virginia, and Wisconsin. The South Region should be comprised of the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia. The Intermountain Region should be comprised of the states of Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming. The Pacific Coast and Northwest Regions should be comprised of the states of California, Idaho, Montana, Oregon, and Washington.
- *Baseline and Frequency of Measurement* –The baseline should begin in the year in which EPA guidance is issued and be updated every 10 years. The measurement of forest carbon stocks should be updated every 5 years.
- *Period of Review and Remediation* – The program should include a clear process that would allow for a period of review and remediation in forest landscapes that may have an unexpected deterioration in carbon stocks. This is because there may be circumstances where a forest is subject to ecological forces that cause stocks to decline and where continued thinning and biomass energy utilization is determined to be a net benefit to its

⁶ [HYPERLINK "<https://archive.epa.gov/epa/sites/production/files/2016-08/documents/biogenic-co2-accounting-framework-report-sept-2011.pdf>"] (pg. 23)

⁷ [HYPERLINK "<https://archive.epa.gov/epa/sites/production/files/2016-08/documents/biogenic-co2-accounting-framework-report-sept-2011.pdf>"] (pg. 42)

regeneration. In other cases, there may be a reduction in carbon stocks due to other factors. The determination of likely causes and potential remedies should be part of any framework.

- *Exceptions* –Forest biomass sourced from mill product manufacturing residues, harvest residues; biowaste (including used wood products); or forest management activities that are conducted to increase yield or to maintain or enhance forest health should not be subject to the landscape-level carbon stock approach.

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<div>Ex. 5 Deliberative Process (DP)</div>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<div>Ex. 5 Deliberative Process (DP)</div>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					
Phase I Action Litigation Support					
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
Ex. 5 Deliberative Process (DP)					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
Ex. 5 Deliberative Process (DP)					
Ex. 5 Deliberative Process (DP)					

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
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Ex. 5 Deliberative Process (DP)

Project	Target Completion Date	Current Status	Key Milestones	OAQPS/OGC Staff	Comments
<h1>Ex. 5 Deliberative Process (DP)</h1>					

Message

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 9/19/2019 12:41:25 PM
To: Koerber, Mike [Koerber.Mike@epa.gov]
CC: Megan Brachtl [Brachtl.Megan@epa.gov]
Subject:
Attachments: **Ex. 5 Deliberative Process (DP)**

Mike,

We got this feedback on Monday 9/9/19:

Ex. 5 Deliberative Process (DP)

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Johnson, Yvonne W <Johnson.YvonneW@epa.gov>
Sent: Monday, September 09, 2019 3:58 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>; Brachtl, Megan <Brachtl.Megan@epa.gov>; Ling, Michael <Ling.Michael@epa.gov>; Rao, Raj <Rao.Raj@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>; Palma, Elizabeth <Palma.Elizabeth@epa.gov>
Subject: feedback from today's OAR 1/1

AQPD

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

FYI

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

AWAITING FEEDBACK FROM OAR

Biogenic CO2:

Ex. 5 AC/DP

Ex. 5 AC/DP

Ex. 5 Deliberative Process (DP)

Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921

johnson.yvonne@epa.gov

Message

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 7/18/2019 8:28:02 PM
To: Baker, Sarah [baker.sarah@epa.gov]
CC: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Ex. 5 Deliberative Process (DP)

Excellent! Thanks.

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

From: Baker, Sarah
Sent: Thursday, July 18, 2019 4:05 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Cc: Spangler, Matthew <Spangler.Matthew@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Biomass Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 11/28/2018 11:46:52 AM
To: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Subject: Re: December 13 Biomass and NSR

Ex. 5 Deliberative Process (DP)

Scott Mathias | Associate Director, Air Quality Policy Division | RTP, NC | 919.541.5310

On Nov 27, 2018, at 12:36 PM, Johnson, Yvonne W <Johnson.Yvonnew@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Wood, Anna
Sent: Monday, November 26, 2018 4:29 PM
To: Santiago, Juan <Santiago.Juan@epa.gov>; Rao, Raj <Rao.Raj@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Subject: FW: December 13 Biomass and NSR

Ex. 5 Deliberative Process (DP)

Yvonne, please let us know if there is a one hour time slot within the 10 -1145 time slot that will work, thanks!

From: Wood, Anna
Sent: Monday, November 26, 2018 4:25 PM
To: 'Hunt, Tim' <Tim_Hunt@afandpa.org>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Bradfield, John <Bradfield.John@epa.gov>
Subject: RE: December 13 Biomass and NSR

Hi Tim, hope you had a good Thanksgiving as well. I will check with our permitting folks to see what time might be available on Dec 13th—thx

From: Hunt, Tim <Tim_Hunt@afandpa.org>
Sent: Monday, November 26, 2018 4:21 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Wood, Anna <Wood.Anna@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Bradfield, John <Bradfield.John@epa.gov>
Subject: December 13 Biomass and NSR

Vera and Anna,

Thanks again for meeting with us last week to discuss biomass issues. We agree that not much will change between now and December 13th so no need for another conversation at that time but instead look ahead to early in the New Year.

Since we had the 11 to 1 PM time slot reserved, I would like to propose we use some of that time to talk about other NSR and permitting improvements going into 2019. We have some ideas and refinements of our own and would of course like to hear more details on your regulatory plans on topics such as: commence construction, RMRR, ambient air, debottlenecking, actual to projected actual and netting step II. Please add to the list.

Would you be able to meet from 10 until 11:45 PM on Thursday, December 13th?

I hope you had a nice Thanksgiving break.

Timothy Hunt

Senior Director, Air Quality Programs
AMERICAN FOREST & PAPER ASSOCIATION
AMERICAN WOOD COUNCIL
1101 K Street, NW, Suite 700, Washington, DC 20005
Office: 202-463-2588
Email: thunt@awc.org or Tim_Hunt@afandpa.org

Message

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 9/11/2019 4:13:56 PM
To: Simon, Karl [Simon.Karl@epa.gov]
CC: Megan Brachtel [Brachtel.Megan@epa.gov]
Subject: FW: feedback from today's OAR 1/1

Hi Karl,

Ex. 5 Deliberative Process (DP)

Scott Mathias | Acting Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Johnson, Yvonne W <Johnson.YvonneW@epa.gov>
Sent: Monday, September 09, 2019 3:58 PM
Subject: feedback from today's OAR 1/1

AQPD

AWAITING FEEDBACK FROM OAR

Biogenic CO₂:

Ex. 5 AC/DP

Ex. 5 AC/DP

Ex. 5 Deliberative Process (DP)

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonneW@epa.gov

Message

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 3/26/2019 8:32:18 PM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: May 9 Meeting

Ex. 5 Deliberative Process (DP)

Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

From: Vetter, Cheryl
Sent: Tuesday, March 26, 2019 4:29 PM
To: Mathias, Scott <Mathias.Scott@epa.gov>
Subject: RE: May 9 Meeting

Hey Scott,

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Mathias, Scott
Sent: Tuesday, March 26, 2019 4:12 PM
To: Tim_hunt@afandpa.org
Cc: [Santiago, Juan <Santiago.Juan@epa.gov>](mailto:Santiago.Juan@epa.gov); [Rao, Raj <Rao.Raj@epa.gov>](mailto:Rao.Raj@epa.gov); [Wood, Anna <Wood.Anna@epa.gov>](mailto:Wood.Anna@epa.gov); [Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>](mailto:Johnson.Yvonnew@epa.gov); [Vetter, Cheryl <Vetter.Cheryl@epa.gov>](mailto:Vetter.Cheryl@epa.gov); [Kornylak, Vera S. <Kornylak.Vera.S@epa.gov>](mailto:Kornylak.Vera.S@epa.gov)
Subject: May 9 Meeting

Hi Tim,

Thanks for the call. I will be officially assuming the duties of Acting Division Director on May 1, and would welcome further discussions with your group. I am no stranger to permit-related issues and have some familiarity with the concerns AF&PA has raised to EPA's attention. Unfortunately most of the managers you're used to working with on NAAQS and permitting issues will be on work-related travel the week of May 6-10. This includes me, Anna Wood, Chet Wayland, and possibly Juan Santiago. However, Raj Rao and Cheryl Vetter and their capable staff may be available to meet with your group when you are here on May 9. I'm copying Yvonne (who you will continue to work with on scheduling & agendas), as well as Raj and Cheryl, on this email to let them know you are coming.

Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 7/17/2018 11:58:08 AM
To: Ex. 5 Deliberative Process (DP)
Subject: FW: Agenda/Meeting Materials in Prep for Tomorrow's Meetings
Attachments:


Ex. 5 Deliberative Process (DP)

From: South, Peter
Sent: Monday, July 16, 2018 4:56 PM
Subject: Agenda/Meeting Materials in Prep for Tomorrow's Meetings

FYI

Ex. 5 Deliberative Process (DP)

	Bill W	Mandy	David	Alex
8:30 to 9:00	Ex. 5 Deliberative Process (DP)			
9:00 to 9:45	Ex. 5 Deliberative Process (DP)		Ex. 5 Deliberative Process (DP)	
10:00 to 10:45	Ex. 5 Deliberative Process (DP)		Ex. 5 Deliberative Process (DP)	
11:00 to 11:45	Ex. 5 Deliberative Process (DP)		Biomass Backgrounder	

	<div>Ex. 5 Deliberative Process (DP)</div>	<div> 4_b_Biomass Update AD 07_1...</div>
12:00 to 12:45	<i>Lunch</i>	
1:00 to 1:45	<div>Ex. 5 Deliberative Process (DP)</div>	
2:00 to 2:45	<div>Ex. 5 Deliberative Process (DP)</div>	<div><div>Ex. 5 Deliberative Process (DP)</div><div>Ex. 5 Deliberative Process (DP)</div><div>Ex. 5 Deliberative Process (DP)</div></div>
3:00 to 3:45	<div>Redacted</div>	<div>Ex. 5 Deliberative Process (DP)</div>
3:45 to 5:00	OAR Business Review	Open

Message

From: Mathias, Scott [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4BE52CDCCCA348EEB5CD1EFEBE6CAF24-SMATHIAS]
Sent: 4/1/2020 1:11:52 PM
To: Santiago, Juan [santiago.juan@epa.gov]
Subject: FW: Enviro Call tomorrow. First draft of agenda below

Scott Mathias | Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Lewis, Josh <Lewis.Josh@epa.gov>
Sent: Wednesday, April 01, 2020 8:32 AM
To: Santiago, Juan <Santiago.Juan@epa.gov>
Cc: Koerber, Mike <Koerber.Mike@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Subject: Re: Enviro Call tomorrow. First draft of agenda below

Ex. 5 Deliberative Process (DP)

On Apr 1, 2020, at 8:11 AM, Santiago, Juan <Santiago.Juan@epa.gov> wrote:

Ex. 5 Deliberative Process (DP)

Juan

From: Lewis, Josh <Lewis.Josh@epa.gov>
Sent: Wednesday, April 01, 2020 8:07 AM
To: Koerber, Mike <Koerber.Mike@epa.gov>; Mathias, Scott <Mathias.Scott@epa.gov>
Cc: Santiago, Juan <Santiago.Juan@epa.gov>
Subject: RE: Enviro Call tomorrow. First draft of agenda below

Ok thanks guys.

From: Koerber, Mike <Koerber.Mike@epa.gov>
Sent: Wednesday, April 1, 2020 7:58 AM
To: Mathias, Scott <Mathias.Scott@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>
Cc: Santiago, Juan <Santiago.Juan@epa.gov>
Subject: RE: Enviro Call tomorrow. First draft of agenda below

Thanks, Scott. Sounds good to me.

Ex. 5 Deliberative Process (DP)

From: Mathias, Scott <Mathias.Scott@epa.gov>
Sent: Wednesday, April 01, 2020 7:44 AM
To: Lewis, Josh <Lewis.Josh@epa.gov>
Cc: Koerber, Mike <Koerber.Mike@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>
Subject: RE: Enviro Call tomorrow. First draft of agenda below

Hi Josh,

Ex. 5 Deliberative Process (DP)

Scott Mathias | Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

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From: Lewis, Josh <Lewis.Josh@epa.gov>
Sent: Wednesday, April 01, 2020 7:29 AM
To: **Ex. 5 Deliberative Process (DP)**
Cc: **Ex. 5 Deliberative Process (DP)**; Hagan, Nicole <Hagan.Nicole@epa.gov>
Subject: Enviro Call tomorrow. First draft of agenda below

First draft below. Comments/edits welcome.

- COVID-19 update:

Ex. 5 Deliberative Process (DP)

- HEID: Share any PM/Ozone updates

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

- AQPD
 - Highlight updates, if any, on key actions:
 - ACE NSR revisions
 - Other NSR actions
 - Biogenic CO2 rule update
 - Ozone Transport
 - CTG update? (We didn't say anything last month about this...thoughts on whether to do so now, given there's been more time for Regions to talk to States?)
- SPPD
 - Highlight updates, if any, on the following items.
 - MATS: Ex. 5 Deliberative Process (DP)
 - Update on timeline for finalizing the 111(b) proposal for GHGs from power plants
 - Update on the Oil and Gas Policy and Technical packages
- EtO IG report

Message

From: Noe, Paul [Paul_Noe@afandpa.org]
Sent: 1/3/2020 10:04:25 PM
To: Hyman, Alana [Hyman.Alana@epa.gov]
CC: Seidman, Laura [Laura_Seidman@afandpa.org]; Pickard, Laura [Laura_Pickard@afandpa.org]; Wheeler, Andrew [wheeler.andrew@epa.gov]; Dickerson, Aaron [dickerson.aaron@epa.gov]
Subject: PPRC Meeting Request: February 4-6
Attachments: ATT00001.txt; PPRC Meeting Request Wheeler 12-18-19.pdf

Dear Alana,

I am writing to request a meeting with EPA Administrator Andrew Wheeler and representatives of the Pulp and Paperworkers' Resource Council (PPRC), who will be visiting Washington, DC from Tuesday, February 4th through Thursday, February 6th. We would be pleased if a group of PPRC members could meet with Administrator Wheeler to discuss several policy priorities, including the carbon neutrality of biomass, clean air and water issues, and the pending EPA regulation on cost-benefit analysis under the Clean Air Act.

Thank you for your help. I am copying Laura Seidman who can help find a convenient time. Please do not hesitate to contact me if you have any questions.

Best regards,

Paul

PAUL NOE

Vice President, Public Policy

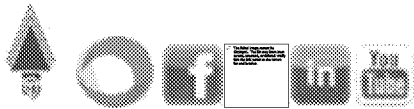
Paul_Noe@afandpa.org

(202) 463-2777

AMERICAN FOREST & PAPER ASSOCIATION

1101 K Street, N.W., Suite 700

Washington, D.C. 20005



Message

From: Baker, Sarah [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BAKER, SARAH]
Sent: 6/20/2019 5:55:27 PM
To: Moran, Robin [moran.robin@epa.gov]
Subject: RE: Biomass Briefing Discussion
Attachments: Final Wehrum June Briefing Document.docx

Hi Robin. I've attached the final briefing document.
information on anything. Thanks!
Sarah

Ex. 5 Deliberative Process (DP)

From: Moran, Robin
Sent: Tuesday, June 18, 2019 11:23 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Biomass Briefing Discussion

Thanks Sarah! I'm open from 3-4 if anytime in there works for a quick catch up.

From: Baker, Sarah
Sent: Tuesday, June 18, 2019 11:21 AM
To: Moran, Robin <moran.robin@epa.gov>
Subject: RE: Biomass Briefing Discussion

Hi Robin! I'm in a conference right now

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!
Sarah

From: Moran, Robin
Sent: Tuesday, June 18, 2019 11:05 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: FW: Biomass Briefing Discussion

Hi Sarah, I'm back in office and was

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!
Robin

Robin Moran
Senior Policy Advisor
U.S. EPA, Office of Transportation and Air Quality
2000 Traverwood Dr.
Ann Arbor, MI 48105
(734) 214-4781 (phone)

From: Greenglass, Nora
Sent: Wednesday, June 12, 2019 7:04 AM

To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Svendsgaard, Dave <Svendsgaard.Dave@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Moran, Robin <moran.robin@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>; Steller, John <Steller.John@epa.gov>; Krallman, John <krallman.john@epa.gov>
Subject: Biomass Briefing Discussion

Ex. 5 Deliberative Process (DP)

Biomass Briefing Discussion

Scheduled: Wednesday, Jun 12, 2019 from 09:00 to 10:00

Location: **Ex. 6 Personal Privacy (PP)** AQAD/Phone-Line/RTP-OAQPS-BLDG-C

Invitees: Vetter, Cheryl, Svendsgaard, Dave, Doster, Brian, Ohrel, Sara, Moran, Robin, Baker, Sarah, Steller, John, Krallman, John

Sent from my iPhone

Appointment

From: Baker, Sarah [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BAKER, SARAH]
Sent: 9/16/2019 7:19:57 PM
To: Idsal, Anne [idsal.anne@epa.gov]

Subject: Accepted: Biogenic CO2 Rulemaking follow-up
Location: WJC - N 5400 + 202-991-0477 + 939-686

Start: 9/18/2019 6:00:00 PM
End: 9/18/2019 7:00:00 PM
Show Time As: Busy

Message

From: Baker, Sarah [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BAKER, SARAH]
Sent: 9/16/2019 1:39:59 PM
To: Ashley, Jackie [Ashley.Jackie@epa.gov]
CC: Mocka, Corey [mocka.corey@epa.gov]
Subject: RE: Biogenic CO2 Administrator Comments

Thank you! This is extremely helpful.

From: Ashley, Jackie <Ashley.Jackie@epa.gov>
Sent: Friday, September 13, 2019 12:54 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Cc: Mocka, Corey <mocka.corey@epa.gov>
Subject: RE: Biogenic CO2 Administrator Comments

Sarah –

Ex. 5 Deliberative Process (DP)

April 2, 2019 – **Hearing exchange** -- House Appropriations Subcommittee on Interior and Environment Hearing on Fiscal 2020 Budget Request for the EPA. Administrator Wheeler testified.

- Rep. Mike Simpson (ID) and Administrator Wheeler had a brief exchange during the hearing
 - *SIMPSON: First question, a serious question. Well, they're all serious. In the past several final appropriations bill there has been a language that directed the EPA to consult with Forest Service and DOE, to provide clarity on rule that defines biomass as carbon neutral. This is important as trees are key in carbon sequestration. Almost a year ago, the EPA issues a policy statement that seemed to align with the language. Can you update this subcommittee on further steps the EPA has taken to follow the language included in the appropriations bills?*
 - *WHEELER: We are working on that. We hope to have a proposal out this summer. It's a little more difficult than what we originally anticipated. Its taking some time. But we are moving forward with that. And we intend to have something out this summer.*
- No follow-up questions for the record on the topic from this hearing.

April-May 2019 – **Technical assistance** request from staff for Sen. Collins (ME)

- Sen. Collins staff asked OCIR for any additional information we could provide about the “biomass neutrality rule”
- **Ex. 5 Deliberative Process (DP)**
 - In November 2018, EPA, USDA, and DOE sent a letter to the Senate and House Committees on Appropriations describing the agencies’ work to ensure consistent federal policy on forest biomass energy and promote clear policies that encourage the treatment of forest biomass as a carbon-neutral renewable energy solution.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

June 2019 – Technical assistance request from staff for Sen. Fischer (NE)

Ex. 5 Deliberative Process (DP)

- OAR provided the following (via OCIR)
 - EPA continues to make progress on developing a potential regulatory proposal for the treatment of biogenic CO2 emissions under Clean Air Act permitting programs. EPA has advised external stakeholders that we are engaged in this process.

Redacted

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, September 12, 2019 4:13 PM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: RE: Biogenic CO2 Administrator Comments

Ex. 5 Deliberative Process (DP)

please feel free to let me know. Thanks!
Sarah

From: Ashley, Jackie <Ashley.Jackie@epa.gov>
Sent: Thursday, September 12, 2019 2:30 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Biogenic CO2 Administrator Comments

Hi Sarah –

Ex. 5 Deliberative Process (DP)

Juan may also be a good resource.

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, September 12, 2019 1:40 PM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Subject: Biogenic CO2 Administrator Comments

Hi Jackie-

Ex. 5 Deliberative Process (DP)

provide would be greatly appreciated. Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

Sent: 6/1/2020 1:37:34 PM
To: Massey, Lana [massey.lana@epa.gov]
CC: Long, Pam [Long.Pam@epa.gov]; Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]
Subject: Final Biogenic CO2 Briefing Paper for Monday
Attachments: Final Idsal Biomass Comment Briefing_4-20-20.docx

Hi Lana-

Ex. 5 Deliberative Process (DP)

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

Sent: 4/16/2020 11:30:02 AM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]; Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Greenglass, Nora [Greenglass.Nora@epa.gov]; Doster, Brian [Doster.Brian@epa.gov]; Krallman, John [krallman.john@epa.gov]; Ohrel, Sara [Ohrel.Sara@epa.gov]; Steller, John [Steller.John@epa.gov]; Petesch, Theresa (Tess) [petesch.theresa@epa.gov]; Sorrels, Larry [Sorrels.Larry@epa.gov]; Svendsgaard, Dave [Svendsgaard.Dave@epa.gov]
CC: Cortelyou-Lee, Jan [Cortelyou-Lee.Jan@epa.gov]
Subject: REVIEW - Idsal Briefing Document

All-

Here is  to the revised briefing document for Monday's biomass briefing with Anne. There have been

Ex. 5 Deliberative Process (DP)

early this afternoon. Please let me know if you have any questions. Thanks.

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Sent: 4/2/2020 7:42:11 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Biogenic CO2 Idsal Meeting Request
Attachments: Idsal Meeting Request 4-20-20.docx; Peter T Meeting Request 4-3-20.docx

Ex. 5 Deliberative Process (DP)

Sarah

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Thursday, April 02, 2020 3:30 PM
To: Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biogenic CO2 Idsal Meeting Request

Ex. 5 Deliberative Process (DP)

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, April 2, 2020 3:29 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biogenic CO2 Idsal Meeting Request

Ex. 5 Deliberative Process (DP)

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Thursday, April 02, 2020 3:28 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Biogenic CO2 Idsal Meeting Request

Ex. 5 Deliberative Process (DP)

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Thursday, April 2, 2020 3:22 PM
To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Biogenic CO2 Idsal Meeting Request

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Thursday, April 02, 2020 2:43 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biogenic CO2 Idsal Meeting Request

Hi Sarah, Ex. 5 Deliberative Process (DP) I would add Alex Dominguez to the OAR IO list of invitees,

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Vera

From: Baker, Sarah <baker.sarah@epa.gov>

Sent: Thursday, April 2, 2020 1:53 PM

To: Kornylak, Vera S. <Kornylak.Vera@epa.gov>

Cc: Long, Pam <Long.Pam@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: Biogenic CO2 Idsal Meeting Request

Vera-

Attached is the meeting request that we discussed for Anne reviewed. Please let me know if there are others to add. Thanks.

Sarah

Ex. 5 Deliberative Process (DP)

Sarah Baker

Environmental Protection Specialist

Air Quality Policy Division, Operating Permits Group

U.S. EPA, Office of Air Quality Planning and Standards

(919) 541-4846 / baker.sarah@epa.gov

Message

Sent: 3/31/2020 8:19:43 PM
To: Kornylak, Vera S. [Kornylak.Vera@epa.gov]; Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Biomass Administrator Update

Thanks Vera-

Ex. 5 Deliberative Process (DP)

me know. Thanks!
Sarah

Excel File:

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Tuesday, March 31, 2020 4:04 PM
To: Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Biomass Administrator Update

Ex. 5 Deliberative Process (DP)

- # Ex. 5 AC/DP

- ## Ex. 5 Deliberative Process (DP)

I'm available if you think it makes Ex. 5 Deliberative Process (DP) I'm planning on participating on the call tomorrow. Hope you're doing well!

Vera

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Tuesday, March 31, 2020 3:59 PM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: Biomass Administrator Update

I found out Ex. 5 Deliberative Process (DP) that Friday's administrator meeting happened yesterday.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

would occur. Thanks!

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

Sent: 3/25/2020 5:29:27 PM
To: Buckler, Charles [Buckler.Charles@epa.gov]; Mataway-Novak, Dylan [Mataway-Novak.Dylan@epa.gov]
CC: Payne, JamesJ [payne.jamesj@epa.gov]
Subject: RE: Rulemakings and importance to tribes and communities

Ex. 5 Deliberative Process (DP)

The rule is currently under OMB review and we're just working through interagency comments. For now we have announced that the rule will establish the treatment of biogenic CO2 from certain biomass feedstocks at stationary sources under PSD permitting.

5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Buckler, Charles <Buckler.Charles@epa.gov>
Sent: Wednesday, March 25, 2020 11:08 AM
To: Baker, Sarah <baker.sarah@epa.gov>; Mataway-Novak, Dylan <Mataway-Novak.Dylan@epa.gov>
Cc: Payne, JamesJ <payne.jamesj@epa.gov>
Subject: Rulemakings and importance to tribes and communities

Ex. 5 Deliberative Process (DP)

Thanks.

CB

To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: Biomass Controlled Correspondence
Attachments: Response to Michigan State University - with Wheeler Comments.docx

Cheryl-

I was able to get the transcript of the hearing from CSPAN.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

Senator Braun

GOOD TO SEE YOU AGAIN, ADMINISTRATOR WHEELER. THE FIRST TIME WE MET I TOLD YOU HOW DEAR THE ENVIRONMENT IS TO ME. I SPENT MANY YEARS INVOLVED IN AGRICULTURE, STILL DUE TO THE EXTENT I CAN AND I HAVE BEEN A TREE FARMER. WE HAVE ALSO GOTTEN NOW A SENATE CLIMATE CAUCUS, THE FIRST ACROSS THE THRESHOLD AS A REPUBLICAN. HAVE SIX OTHERS ON IT COME ALONG WITH SEVEN DEMOCRATS. I THINK THE POSITION YOU ARE IN NOW MORE THAN EVER HAS SUCH IMPORTANCE, AND I VIEW THAT BECAUSE I'VE GOT FOUR KIDS. YOUNGER GENERATIONS REALLY BELIEVE THAT WE NEED TO DO A REALLY PROTECTIVE JOB OF TAKING CARE OF MOTHER EARTH, AND I THINK YOU CITED THE PROGRESS WE HAVE MADE OVER TIME. ALSO, I HEARD SENATOR WICKER ASK YOU ABOUT FOREST BIOMASS AND THE RULING WILL BE FLESHED OUT IN JUNE. THAT IS GREAT TO HEAR. AGRICULTURE, ACCORDING TO THE LETTER FROM THE 21 EXPERTS SAID -- SCIENTISTS AND SO FORTH, SAID IT PROBABLY EVEN HAS MORE APPLICABLE -- APPLICABILITY WITH THAT SAME PRINCIPLE. IS THERE CURRENTLY IN THE EPA CONSIDERATION OF A DIMINISHED -- DIMINOMOUS RULE FOR CROPS SIMILAR TO WHAT YOU WANT WITH TREES?

Administrator Wheeler

WE ARE DOING THAT IN A THREE-PHASE PROCESS. WE ARE DOING THE WOODY BIOMASS FIRST. WE WILL BE LOOKING AT THE CROPS. I'M SORRY, I DON'T REMEMBER IF THAT IS PHASE TWO OR THREE BUT OVER THE NEXT YEAR AND A HALF WE WILL ROLLOUT THE OTHER CO2.

Sarah Baker

Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

Sent: 5/19/2020 12:39:36 PM
To: Vetter, Cheryl [Vetter.Cheryl@epa.gov]
Subject: RE: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2
Attachments: Response to Michigan State University.docx

Ex. 5 Deliberative Process (DP)

-----Original Message-----

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Tuesday, May 19, 2020 8:27 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

-----Original Message-----

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Tuesday, May 19, 2020 8:21 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2

Ex. 5 Deliberative Process (DP)

-----Original Message-----

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Tuesday, May 19, 2020 8:19 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2

Ex. 5 Deliberative Process (DP)

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

-----Original Message-----

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Tuesday, May 19, 2020 8:16 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: RE: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2

Should I be working on a response for this? Is there anything that we can say beyond we appreciate your comments, as you mentioned, we are working on a rulemaking that we anticipate will be proposed this summer and we welcome all comments then?

-----Original Message-----

From: Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Sent: Tuesday, May 19, 2020 8:03 AM
To: Long, Pam <Long.Pam@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>
Cc: Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>

Subject: RE: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2

It is ours.

Cheryl Vetter
U.S. Environmental Protection Agency
OAQPS/AQPD/OPG (C504-03)
Research Triangle Park, NC 27711
Phone (919) 541-4391 Fax (919) 541-5509
Note: Positions or views expressed here do not represent official EPA policy.

-----Original Message-----

From: Long, Pam <Long.Pam@epa.gov>
Sent: Tuesday, May 19, 2020 6:46 AM
To: Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>
Subject: Question -- NEW CONTROL - CMS New Assignment - University of Michigan - Biogenic carbon dioxide emissions from agricultural feedstock - AX-20-000-5245 - Due 6/2

Is this ours **Ex. 5 Deliberative Process (DP)**

-----Original Message-----

From: cmsadmin@epa.gov <cmsadmin@epa.gov>
Sent: Monday, May 18, 2020 10:57 AM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Massey, Lana <massey.lana@epa.gov>; Mocka, Corey <mocka.corey@epa.gov>
Subject: CMS New Assignment - Jenny Noonan - AX-20-000-5245

Control AX-20-000-5245 has been assigned to your office on 5/18/20 10:56 AM by Jenny Noonan. Please go

Ex. 5 Deliberative Process (DP)

Summary Information -
Control Number: AX-20-000-5245
Control Subject: Reading File - Biogenic carbon dioxide emissions from agricultural feedstocks
From: Dale, Bruce

Ex. 5 Deliberative Process (DP)

Message

From: Rick Buhr [rbuhr@biocarbonpower.com]
Sent: 5/29/2020 6:10:43 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: Re: EPA Biogenic CO2 Proposal

Ok that works

On May 29, 2020, at 9:02 AM, Baker, Sarah <baker.sarah@epa.gov> wrote:

I think I spoke too soon as we have another meeting at that time. Would it be alright to shift it to 11am?

From: Rick Buhr <rbuhr@biocarbonpower.com>
Sent: Wednesday, May 27, 2020 3:09 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: Re: EPA Biogenic CO2 Proposal

Yes, that works for me.

On May 27, 2020, at 2:54 PM, Baker, Sarah <baker.sarah@epa.gov> wrote:

No worries. Would 2 pm on Thursday, June 11th work?

From: Rick Buhr <rbuhr@biocarbonpower.com>
Sent: Wednesday, May 27, 2020 11:20 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: Re: EPA Biogenic CO2 Proposal

Just re-read this, pls excuse grammar, must have been M day fatigue

On May 26, 2020, at 4:30 PM, Rick Buhr <rbuhr@biocarbonpower.com> wrote:

Sarah, thank you. Anytime at yours and their's convenience. Best, rick

On May 26, 2020, at 4:09 PM, Baker, Sarah
<baker.sarah@epa.gov> wrote:

Hi Rick-

I wanted to follow up with you and let you know that I spoke with some people in our Office of Atmospheric Programs. They thought it might be easiest to have a phone call to see if they can help answer some of your questions. Would that work? Looking at the calendars I think we have some availability on June 10th or 11th. If those dates work I can narrow down a time. Thanks!

Respectfully,
Sarah

From: Rick Buhr <rbuhr@biocarbonpower.com>

Sent: Sunday, April 05, 2020 11:36 AM

To: Baker, Sarah <baker.sarah@epa.gov>

Subject: Re: EPA Biogenic CO2 Proposal

Sarah, hope all is well. I trying to find the accepted formula to determine the amount of GHG's, methane, CO2, and Nitrous Oxides are emitted from a pile of organic AG waste, ie wood, crop residuals etc. Does the EPA have a basic formula? Example: 200,000 tons of dead trees (cut) left to decay, emits ?, and the following years. Then does the EPA have standards for reduction of these gases translated into comparisons like "taking 100 cars off the road" I hope I'm making sense here in my non scientific mind. Please feel free to call me. Please stay safe and healthy, Rick

Richard Buhr
American Biocarbon LLC
516-650-5840

On Feb 27, 2020, at 11:41 AM, Baker,
Sarah <baker.sarah@epa.gov> wrote:

Mr. Buhr-

Thank you for your interest in the EPA's proposal for the treatment of biogenic CO2 emissions under Clean Air Act permitting programs. As I mentioned, the rule is currently being reviewed by the US Office of Management and Budget (OMB). Once their review concludes, we anticipate publishing a public comment period in late Spring in the federal register (<https://www.federalregister.gov/>). During this public comment period, the

proposal and supporting documents will be available for public review and comment. I misspoke during our conversation as there is the ability to submit anonymous comments through <https://www.regulations.gov/>, however, the comment itself will be public. More information on submitting comments and the information required will be included in the proposal once it is published.

As we discussed, the current EPA policy on the treatment of biogenic CO2 emissions may be found at https://www.epa.gov/sites/production/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf.

I hope this is helpful, but please let me know if I can answer any additional questions. We look forward to your input on the proposal.

Respectfully,

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating
Permits Group
U.S. EPA, Office of Air Quality
Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Elman, Barry [Elman.Barry@epa.gov]
Sent: 3/30/2020 12:58:15 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject:
Attachments:

Ex. 5 Deliberative Process (DP)

Hi Sarah,

Attached are my suggested revisions to section **Ex. 5 Deliberative Process (DP)** Please let me know if you have **Ex. 5 Deliberative Process (DP)** with that.

Barry

From: Ohrel, Sara [Ohrel.Sara@epa.gov]
Sent: 3/22/2020 10:22:56 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: Re: Biogenic Follow-up

Thanks Sarah! **Ex. 5 Deliberative Process (DP)**

On Mar 20, 2020, at 6:49 PM, Baker, Sarah <baker.sarah@epa.gov> wrote:

Hello everyone-

Ex. 5 Deliberative Process (DP) had a discussion with Harlow today (see below) and gave me a recap. Most of the details she summarized below **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

I hope you all have a great weekend. Stay healthy!!!
Sarah

From: Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Sent: Friday, March 20, 2020 4:24 PM
To: Mathias, Scott <Mathias.Scott@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Baker, Sarah <baker.sarah@epa.gov>
Cc: Culligan, Kevin <Culligan.Kevin@epa.gov>
Subject: Biogenic Follow-up

Hi Everyone: just a quick follow-up to let you know the action item **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP) David Harlow **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Kevin, anything I left out that needs mentioning?

Thanks,
Vera

Vera Kornylak
Acting Associate Director | Air Quality Policy Division
Kornylak.vera@epa.gov | 919-541-4067

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Message

From: Ohrel, Sara [Ohrel.Sara@epa.gov]
Sent: 3/19/2020 4:48:02 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: Biogenic CO2 Follow-up

Nicely done!

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, March 19, 2020 12:47 PM
To: Cortelyou-Lee, Jan <Cortelyou-Lee.Jan@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Elman, Barry <Elman.Barry@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Johnson, Terry <Johnson.Terry@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Krallman, John <krallman.john@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Petesch, Theresa (Tess) <petesch.theresa@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Sorrels, Larry <Sorrels.Larry@epa.gov>; Steller, John <Steller.John@epa.gov>; Svendsgaard, Dave <Svendsgaard.Dave@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Biogenic CO2 Follow-up

All-

Thank you for taking the time to participate in this morning's call. Here is just a quick recap and some follow-up items:

Status

1. We have had two 12866 calls, one with AF&PA and one with Biogenic CO2 Council. Two more are scheduled with Clean Air Task Force and Environmental Defense Fund.

Ex. 5 Deliberative Process (DP)

Next Steps

Ex. 5 Deliberative Process (DP)

Please do not hesitate to let me know if you have any questions or concerns. Thank you.

Respectfully,

Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/259576440>

The 'debt' is in the detail: A synthesis of recent temporal forest carbon analyses on woody biomass for energy

Article in *Biofuels Bioproducts and Biorefining* · July 2013

DOI: 10.1002/bbb.1497

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Patrick Lamers

National Renewable Energy Laboratory

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Some of the authors of this publication are also working on these related projects:



2016 Billion-Ton Report View project



Co-Optima View project

The 'debt' is in the detail: A synthesis of recent temporal forest carbon analyses on woody biomass for energy

Patrick Lamers, Copernicus Institute, Utrecht University, the Netherlands; Ecofys Germany, Berlin, Germany
Martin Junginger, Copernicus Institute, Utrecht University, the Netherlands

Received November 20, 2012; revised February 20, 2013; accepted February 20, 2013
View online April 12, 2013 at Wiley Online Library (wileyonlinelibrary.com); DOI: 10.1002/bbb.1407;
Biofuels, Bioprod. Bioref. 7:373–385 (2013)

Abstract: The temporal imbalance between the release and sequestration of forest carbon has raised a fundamental concern about the climate mitigation potential of forest biomass for energy. The potential carbon debt caused by harvest and the resulting time spans needed to reach pre-harvest carbon levels (payback) or those of a reference case (parity) have become important parameters for climate and bioenergy policy developments. The present range of analyses however varies in assumptions, regional scopes, and conclusions. Comparing these modeling efforts, we reveal that they apply different principle modeling frameworks while results are largely affected by the same parameters. The size of the carbon debt is mostly determined by the type and amount of biomass harvested and whether land-use change emissions need to be accounted for. Payback times are mainly determined by plant growth rates, i.e. the forest biome, tree species, site productivity and management. Parity times are primarily influenced by the choice and construction of the reference scenario and fossil carbon displacement efficiencies. Using small residual biomass (harvesting/processing), deadwood from highly insect-infected sites, or new plantations on highly productive or marginal land offers (almost) immediate net carbon benefits. Their eventual climate mitigation potential however is determined by the effectiveness of the fossil fuel displacement. We deem it therefore unsuitable to define political guidance by feedstock alone. Current global wood pellet production is predominantly residue based. Production increases based on low-grade stemwood are expected in regions with a downturn in the local wood product sector, highlighting the importance of accounting for regional forest carbon trends. © 2013 Society of Chemical Industry and John Wiley & Sons, Ltd

Keywords: temporal carbon; carbon debt; carbon neutrality; carbon payback; carbon parity; bioenergy; forest biomass

Introduction

Several years ago, the bioenergy emission accounting rules of prominent renewable energy promotion policies and greenhouse gas (GHG) reporting and trading schemes such as the EU Emission Trading Scheme or the United Nation's Framework Convention on Climate Change (UNFCCC) were identified as misleading.^{1–3} The main criticism was that biogenic carbon releases, for example, from forest harvest, were reported as part of the forestry sector while biomass combustion emissions in the energy sector were accounted as zero, thus suggesting the bioenergy system to be carbon neutral. Since then, there has been a flurry of debate on the sustainability of bioenergy, particularly with respect to its carbon footprint.^{4–7}

Due to their potential order of magnitude, much of the recent research and debate has focused on the quantification of emissions from direct and indirect land-use change (see Fargione *et al.*,⁸ Melillo *et al.*,⁹ and a review by Berndes *et al.*¹⁰). By now, lifecycle analyses (LCA) of biomass to energy value chains^{11,12} quantifying additional fossil fuel emissions as well as carbon emissions due to direct land-use change have been incorporated in new policies, such as the European Renewable Energy Directive 2009/28/EC.

While there seems general agreement that carbon emitted from bioenergy combustion was and will again be sequestered from the atmosphere given a sustainable biomass management system, and thus that bioenergy is a form of renewable energy, there is inherent concern that carbon release and sequestration rates may not be in temporal balance with each other.¹⁰ A temporal imbalance challenges whether an increase in bioenergy use may counteract current climate mitigation targets and requires a full accounting of bioenergy systems, incorporating lifecycle with temporal carbon analyses¹³ against a reference of reduced bioenergy expansion. This is particularly the case for woody-biomass-based systems that rely on longer rotation cycles. Biomass systems based on short rotation crops generally do not face this issue, and may even accrue initial carbon credits if established on land with low initial carbon stocks.

Forest carbon cycles have been modeled for over 20 years (starting with Harmon *et al.*¹⁴). Given current climate change mitigation and renewable energy support policies, more recent analyses have focused on the temporal carbon balance of bioenergy systems, and especially on the issue of 'carbon debt'. This term was first used by Fargione *et al.*⁸ referring to (above- and below-ground) carbon loss from

the conversion of land to liquid biofuel production systems. It was not until 2010, when the terminology appeared in the solid biofuel debate, describing additional emissions from forest biomass as compared to fossil fuels per unit of energy generated.¹⁵ Meanwhile, it has largely been established to describe the loss of sequestered biogenic carbon per land area due to the initial harvest for bioenergy.*

Recent studies evaluating the carbon debt of bioenergy production from forest biomass vary in assumptions and methodologies, regional scopes, and ultimately conclusions. Policy makers are confronted with this portfolio while needing to address the temporal carbon aspect in current regulations. In order to define policies for our carbon constrained world, it is critical to better understand the dimensions and regional differences of these carbon cycles. Only recently, the European Commission launched a tender for an investigation of the carbon impacts of biomass consumed in the EU, specifically dealing with this subject.

This article compares the state-of-the-art temporal forest carbon modeling and highlights the differences in approaches taken and their outcome on the so-called 'carbon debt' of bioenergy. It lists and discusses the uncertainties of current analyses and concludes upon potential policy directions which could be taken based on these findings. However, the article does not discuss all climate change related factors and modeling efforts regarding bioenergy use, in particular geophysical effects such as the albedo.

At the time of writing, no comprehensive review of global temporal carbon research was publicly available. Lippke *et al.*¹⁶ give a general overview of the topic; with a focus on North-American studies. Bowyer *et al.*¹⁷ provide a thorough investigation of the potential role, bioenergy may play regarding the EU's renewable energy and climate targets, in the light of current research. The authors though analyze the topic from a solely European perspective and neglect a wider range of peer-reviewed, international studies,^{18–25} which form part of this analysis. We deem these studies indispensable, also within the European context, as the EU's current renewable targets are likely only achieved with international imports of

*Note that owners of existing intensively managed, even-aged forests (plantations) would consider the plantation establishment as the logical initial reference year, where harvesting redeems a carbon credit rather than creating a new debt. From a policy maker's perspective however, the main question is rather whether he/she should incentivize harvest for bioenergy or not. Most studies analyzed in this article use the moment of harvest as the reference year.

woody biomass.^{26–28} In addition, this paper includes new research^{29,30} covering woody biomass chains destined to Europe from the South-East USA and British Columbia, Canada, the two most important regions currently exporting wood pellets to the EU.³¹ Another reflection of earlier research was done by Holtsmark,³² where the author compared his own past modeling efforts²¹ against work by Cherubini *et al.*^{19,20} and McKechnie *et al.*³³ However, he only covered the forest carbon cycling aspect and not post-harvest carbon dynamics in products and landfills; which are part of this analysis.

Results

We find that current temporal carbon modeling studies can be distinguished by their methodological choices, which practically reflect the scoping of the individual analyses, and the scenario assumptions taken within these scopes.

Methodological choices: the modeling framework

Absolute vs. relative carbon balances: payback vs. parity times

As already mentioned, the carbon debt occurs at a reference point in time when forest biomass is harvested or collected for energy purposes. The time span to recover this carbon loss can be indicated to the site itself (absolute) or against a baseline (relative). An absolute carbon balance approach is chosen to define the time until a site reaches its pre-harvest carbon level. This period has been commonly referred to as ‘payback’³⁴ or ‘repayment times’⁸ in relation to liquid biofuels. Both terms have been applied in the solid biofuel debate,³⁵ often synonymous with the term ‘carbon break-even’.^{25,30}

To conclude upon the climate mitigation potential of bioenergy expansion scenarios, they need to be referenced to alternative land or biomass use scenarios, for example, material use of biomass (e.g. pulp and paper), land protection (no harvest) or conversion to agriculture. This provides insight whether it is more beneficial from a net carbon perspective to keep biogenic carbon sequestered in plants (subjected to natural disturbances such as insects or wildfire) or use it for energy purposes. Thus, the relative carbon balance determines the timeframe when a specific site or scenario reaches the same carbon volume as its counterfactual (reference case). This has commonly been referred to as ‘carbon (sequestration) parity’.^{29,30,35}

The selection and construction of the reference scenario is a key influencing factor whether and when a bioenergy scenario becomes carbon beneficial. Obviously, baseline assumptions should be regionally and scenario specific.

Spatial boundaries: stand- vs. landscape-level

Spatial boundary choices define whether a single or multiple harvest plots are considered in the carbon analysis. Stand-level carbon analyses look at a single land area, plot or cutblock which is disturbed at once, the disturbance type depending on the scenarios (e.g. whole-tree harvest), and re-grows afterwards. Following harvests are performed after the rotation cycle on the same plot, but are not necessarily part of stand-level analysis. The approach is characterized by its saw tooth carbon cycles, typical for early carbon modeling.³⁶ The key benefit of stand-level analysis is its simplicity; a primary reason for it still being part of today’s carbon analyses.^{15,29,30}

While the study of single cutblocks may provide easily comprehensible results, for example, on carbon effects of different harvesting choices, timber/woody biomass supply areas consist of several cutblocks, i.e. contain a time and space dynamic, as introduced via the ‘theoretical’ or ‘fixed’ landscape-level approach.^{37,38} In a nutshell, it comprehends of an area consisting of x (e.g. 80) individual cutblocks following an x (i.e. 80) year rotation cycle. The plots are defined to represent the typical forest conditions of the studied region; though may vary in age structure and potentially other characteristics, for example, deadwood volumes. Per year, one of these plots is harvested while the remaining $x-1$ (i.e. 79 in our example) keep (re-) growing. While harvesting choices can be randomized within models, they are typically designed to follow an oldest forest stretch first harvesting pattern. This implies that the first cutblock is harvested again only after a re-growth period of x (80) years. The landscape carbon balance forms the total sum of all cutblocks (see Eliasson *et al.*³⁹ for a graphical explanation). Harvesting re-grown forest means that the net forest carbon emissions are zero (if no significant soil disturbance and soil carbon release has taken place). If instead woody biomass were taken from an expansion of harvested forest area, the carbon accounting would need to start again with x (80) plots at a mature state and thus net carbon emissions for the first re-growth period. Linked to this, analyses may either include carbon balances for all cutblocks from year one (which would be typical for a situation where bioenergy use is part of a steady-state

system), or the analyses may start from the stand-level and then cumulatively increase with one cutblock each year (e.g. reflecting the annual biomass requirements of a new bioenergy plant) until the first cutblock is harvested again, effectively reaching the landscape level. The latter approach has also been called the increasing stand-level approach.²⁹

Theoretical vs. empirical data: fixed vs. dynamic landscape

Most current forest carbon modeling studies apply a 'fixed' landscape approach, i.e. define a representative yet theoretical forest inventory which is modeled under different scenarios (Table 1). The same carbon models (e.g. LANDCARB or CBM-CFS3) can however also be fed with actual (mostly geospatially explicit) forest inventory data. This 'dynamic' landscape approach possibly represents a more accurate way of modeling forest carbon cycles.

Both modeling efforts however rely on process-based carbon simulations, which, as critics claim¹⁸ and shown in this article, are heavily influenced by parameterization. Also, there seems to be poor agreement among models regarding forest CO₂ exchange rates.⁴⁰ An alternative approach would be to use empirical measurements of CO₂ exchanges between the forest ecosystem and the atmosphere taken over time from a tower located above the forest (see Amiro *et al.*⁴¹ for North American studies).¹⁸ Applying temporal plant dynamics (chronosequences), Bernier and Paré¹⁸ were able to study the carbon cycling of a boreal forest under a yearly constant outtake of biomass (stems only, slash is left to decay) for heating, in comparison to fossil oil. When harvested at mature age (120 years), the carbon payback or parity time against fossil oil heating is over 90 years and increases strongly when cut at a younger growth stage.

Extra-ecosystem carbon modeling

In addition to a sophisticated modeling of ecosystem carbon flows, temporal carbon studies typically account for additional fossil fuel, i.e. life-cycle emissions along the respective value chains. Post-harvest carbon modeling becomes a relevant addition when forest products other than bioenergy are generated from biomass harvest. Product and landfill carbon cycles were already part of early bioenergy carbon modeling.^{37,38,42,43} Among the recent temporal carbon studies, we found that most account at least for product carbon (though often neglecting landfill carbon storage) and additional fossil fuel value chain emissions (Table 1).

Carbon accumulation vs. impulse response functions

Most temporal carbon analyses use cumulative CO₂ emissions, i.e. account carbon fluxes without considering climate responses. The climate response to a pulse emission, which can be seen as the atmospheric decay of a pulse emission, is described by impulse response functions (IRF). IRF are important to understand the climate response to emissions and can also be formulated to describe the temperature response.^{44,45} Climate responses have been shown to differ between fossil fuel CO₂ emissions and those generated by biomass combustion and subsequent tree (re-)growth.^{19,46,47} Despite these findings, IRF are typically not part of present temporal carbon studies. It has even been claimed that the application of IRF to scenarios previously derived via carbon accumulation does not change results fundamentally.³² In our opinion, such drastic conclusions need to be confirmed by additional analysis.

Indirect/market effects

The aim of most studies listed in Table 1 has been a sophisticated modeling of forest carbon cycles for different bioenergy and reference scenarios. With the exception of Böttcher *et al.*,⁴⁸ they do not account for wider system effects, i.e. potential indirect effects either scenario may have on, for example, regional, supra-regional, or global level. Connecting forest carbon (ecosystem) with economic models, for example, via land rents and carbon prices, allows the investigation of market dynamics under different bioenergy scenarios. Most prominently discussed in this regard are interactions within the forestry sector and thus the implication of increased demand for wood biomass for energy on fiber markets (e.g. pulp and paper).^{49,50} Demand increases for biomass due to energy policies, and thus price increases for woody biomass, could however also lead to the conversion of marginal and fallow land (e.g. in the EU agricultural reserve) or grazing land to tree plantations with cascading effects of expanding grazing and/or cropland into existing forests.⁵¹ Ideally, temporal carbon modeling would integrate region-specific woody biomass demand-supply dynamics, indicating carbon and/or economic implications between different bioenergy scenarios (or policy options). Eventually, such modeling would need to go beyond the forestry sector and cover global macro-economic wood fiber demand-supply and land-use patterns.⁴⁹ In this context, it is important to note that the global forest sector experiences long-term autonomous trends, such as the decade long shift of pulp production away from traditional suppliers in the

Table 1. Overview of recent temporal carbon studies and their principle modeling choices.

Study	Methodology	Forest data	Representative, theoretical plots	Post-harvest		Full LCA	Baseline	Model
				carbon cycling				
Cherubini <i>et al.</i> ¹⁹	Fixed landscape	Representative, theoretical plots		N	N	N	-	Bern 2.5CC
Cherubini <i>et al.</i> ²⁰	Stand-level	Representative, theoretical plots		N	N	N	No harvest (but no additional tree growth)	Bern 2.5CC
Eliasson <i>et al.</i> ³⁹	Stand- and fixed landscape	Representative, theoretical plots		N	N	N	-	Q, Coup
Hudiburg <i>et al.</i> ²²	Dynamic landscape	Geospatially explicit (California, Oregon, and Washington, USA)		Y	Y	Y	Protection: no harvest	NCAR CESM/CLM4-CN
BERC ⁶¹	Dynamic landscape	Geospatially explicit (South-East USA)		Y	Y	Y	BAU (timber only harvest) + fossil electricity (several)	Combination (see p. 76)
Galik and Abt ⁶⁰	Dynamic landscape	Geospatially explicit (Virginia, USA)		Y	N	N	-	FORCARB
Jonker <i>et al.</i> ²⁹	Stand- and fixed landscape	Representative, theoretical plots		Y	Y	Y	Protection: no harvest	GORCAM
Lamers <i>et al.</i> ³⁰	Stand- and fixed landscape	Representative, theoretical plots		Y	Y	Y	Slash: roadside burning Protection/no harvest (naturally occurring wildfire) Roundwood: BAU (timber harvest)	CBM-CFS3
MANOMET ¹⁵	Stand-level	Representative, theoretical plots		Y	Y	Y	BAU (timber only harvest) + oil heat BAU (timber only harvest) + coal electricity BAU (timber only harvest) + natural gas heat BAU (timber only harvest) + natural gas electricity	US Forest Service Vegetation Simulator
Zanchi <i>et al.</i> ⁵³	Fixed landscape	Representative, theoretical plots		Y	N	N	BAU (timber only harvest) + coal/oil/NG electricity	GORCAM
Mitchell <i>et al.</i> ³⁵	Fixed landscape	Representative, theoretical plots		Y	N	N	Natural disturbances (wildfire, insects)	LANDCARB
Böttcher <i>et al.</i> ⁴⁸	Dynamic landscape	Forest inventory data of the European Union (except Cyprus, Greece, Malta)		N	N	N	EU energy demand as under current policies Additional policies from April to December 2009 including an achievement of the targets set by 2009/28/EC and 2009/406/EC	G4M, EFISCEN, GLOBIOM
McKechnie <i>et al.</i> ³³	Dynamic landscape	Geospatially explicit (Ontario, Canada)		Y	Y	Y	Decay of harvest residues + coal electricity Decay of harvest residues + mineral oil fuel Protection (natural disturbances) + coal electricity Protection (natural disturbances) + mineral oil fuel	FORCARB-ON
Ter-Mikaelian <i>et al.</i> ²⁵	Dynamic landscape	Geospatially explicit (Ontario, Canada)		Y	Y	Y	Protection (natural disturbances) + coal electricity	FORCARB-ON
Bernier and Paré ¹⁸	Fixed landscape	Empirical carbon flux data		Y	Y	Y	Protection + oil heating	Chronosequence of flux-net data
Holtsmark ²¹	Fixed landscape	Representative, theoretical plots		Y	N	N	BAU (timber only harvest) + coal electricity BAU (timber only harvest) + fossil fuel transport	Statistics Norway internal
Repo <i>et al.</i> ²³	Fixed landscape	Representative, theoretical plots		Y	Y	Y	BAU (timber only harvest), decay of residues + fossil fuel based electricity	Yasso07
Repo <i>et al.</i> ²⁴	Fixed landscape	Representative, theoretical plots		Y	Y	Y	BAU (timber only harvest), decay of residues + fossil fuel based electricity	Yasso07

Northern Hemisphere toward countries in Latin America and South-East Asia.⁵²

Scenario assumptions and model parameterization

The variations between studies with respect to their assumptions are not shortcomings or methodological differences per se. They are rather a reflection of the large differences in possible scenarios, i.e. feedstock options, plant species, and climatic zones among others.

Life-cycle emissions

A full accounting of additional fossil fuel emissions along the respective value chains appears to be a necessary part of temporal carbon analysis from a methodological viewpoint as they may influence carbon payback and parity times. This was noted, for example, by McKechnie *et al.*³³ regarding the amount and type of energy they assumed for drying feedstock and pelletization. Most current studies account for life-cycle emissions; either via generic, theoretical values^{22–24,53} or a more sophisticated life-cycle analysis of individual supply chains.^{29,30,33}

Post-harvest carbon flows

Post-harvest carbon scenarios are largely influenced by the assumed conversion efficiencies and the postulated fossil fuel replaced, i.e. the respective fossil fuel baseline. Where no specific value chain is investigated (e.g. hard coal substitution by wood pellets^{29,30,33}) temporal carbon studies typically calculate payback and parity times against varying fossil fuel baselines.^{23,24,53}

In addition to the conversion efficiency and fossil fuel displacement factors, carbon flows for harvested wood products are also determined by their emission pathway, i.e. the calculated timing of carbon emissions resulting from a temporary storage of carbon in wood products and landfills.⁵⁴ The carbon stored in products varies significantly over time. Ingerson⁵⁵ argues that sequestration benefits should only apply to shares still stored 100 years after harvesting and processing. Most studies though apply the UNFCCC carbon accounting rule which deducts carbon storage over time depending on the product's expected lifespan. Carbon sequestration rates in landfills vary by world region⁵⁴ but are usually multiple times larger than carbon stored in wood products⁵⁶. In the EU though, this sequestration option may become less relevant in the future since landfilling is currently discussed to be phased out completely.

Some carbon studies have provided regionally specific substitution factors and related sensitivity analyses.³⁰ New

research in this area has shown however that displacement factors for carbon stored in wood products may be lower than commonly assumed⁵⁷. Such findings would need to be incorporated in future research.

Baseline construction

Most temporal carbon studies apply two forest baselines. The first is a continued extraction of timber (business-as-usual: BAU) without biomass outtake for energy but fossil fuel energy generation (Table 2). The fossil fuel reference system varies with the fuel bioenergy is assumed to replace. Here, substitution assumptions vary from wood pellets replacing coal based electricity to cellulosic ethanol displacing mineral oil based transport fuel. The choice of the fossil reference system and conversion efficiencies of the selected chains obviously influence the respective payback times dramatically (as sensitivity analyses^{30,43,58} show). That is why some studies^{23,24,53} construct several fossil reference cases.

The second most common forest baseline is land conservation where harvesting (with a certain share for bioenergy) is compared to forest protection. From a nature conservation and carbon strategy evaluation perspective, this is a valid option. The reference scenario is however less straightforward to define for intensive even-aged forestry,⁵⁹ i.e. plantations. Here, protection seems rather unlikely and, in the absence of fiber demand for material (e.g. pulp or timber) or energy purposes, other options such as conversion to agriculture or urban development may be more realistic alternatives with respective consequences for forest carbon stocks. Also, depending on the biome, forest protection implies exposure to natural disturbances, such as wildfires, droughts, or insect infestations. While wildfires have been studied and return rates are often included in the modeling,^{30,33,35} droughts, insect outbreaks, and other related climate change impact factors on forest are much harder to predict and model[†]; though may have severe carbon implications. Depending on the production system, forest protection is a valid reference, though many studies still miss a full demand-supply accounting (exceptions include MANOMET¹⁵, Galik and Abt⁶⁰ and BERC⁶¹), and thus neglect potential displacement effects. Not only does this imply a higher usage of fossil fuels but also, where bioenergy

[†]An in-depth discussion of this issue goes beyond the scope of this paper.

The aspect though can be exemplified by the expected but not yet occurred spruce budworm outbreak in Eastern Canada. At the same time, the still prevalent forest damage and carbon release from Mountain Pine Beetle infestation across British Columbia has not been foreseen at this scale but still affects the total forest carbon balance of Canada.

is a co-product of timber harvesting, the compensation of lumber volumes from other world regions, or the use of other materials such as steel or concrete instead of wood, including respective carbon implications. At the same time, forest protection assumptions postulate that the carbon and thus the land will not be used for human economic activities for centuries; an assumption generally questionable in our land-constrained world.

Biomass type and forest biome

Current temporal carbon analyses within the carbon debt discussion have largely focused on forest biomass, in particular residues (from harvesting and/or processing) and roundwood. The forest biomes covered in contemporary carbon analysis are primarily (sub-) boreal. Due to the impact either choice has on the modeling outcome, we evaluate these items in detail in the following section.

The range of carbon parity times

Study selection

Due to the aforementioned modeling choices and scenario assumptions, the study range found in literature is not directly comparable without prior grouping. Here, we first limited the selection to studies on (fixed and dynamic) landscape level, as we believe this is more representative of real-life harvesting practices. Following, we distinguish by woody biomass type harvested/collected to generate energy. Here, we separate between roundwood/stemwood (or whole-trees) and residues, due to the respective carbon (outtake) volumes associated with either feedstock. It is important to stress that apart from the large difference in carbon volume, the two segments, in particular whole-tree and residue removal, may have different other environmental impacts, for example, onsite productivity due to nutrient removal (more prevalent in foliage). The third cut is made by forest biome and reference scenario. Apart from Cherubini *et al.*,¹⁹ who also modeled fast growing, tropical species (though did not cover post-harvest carbon cycling), the literature range can be separated into temperate southern, sub-boreal/temperate northern, and boreal forests. Within these, attention needs to be paid to the assumed initial forest age, land-use or management regime change, and rotation cycle as all factors strongly influence the initial carbon stock prior to harvest, eventually defining the carbon debt.

Residues/Slash

Parity times for residues (Table 2) mostly vary depending on the respective fossil fuel used in the reference scenario, as the biogenic reference is always carbon release back into the

atmosphere, either via decay or burning. The second most important influencing factor for natural decay scenarios is the size/diameter of the residue and the forest biome, i.e. conditions affecting the decay rate. The range of parity times within the two sub-boreal studies^{30,53} falls within those for small diameter residues in boreal forests.^{23,24} The shortest times were found for processing and harvesting residues which would otherwise be burnt at the factory or roadside respectively. Here, the direct carbon release in the reference case causes an immediate carbon benefit and a net zero parity time.³⁰ The longest parity times were for stump harvest in boreal forests (of northern Finland) when compared to natural decay and natural gas based electricity generation.²³

(low-grade) Stem-/roundwood

Roundwood related parity times (Table 2) vary to some degree by forest biome with significantly shorter periods for highly productive regions, such as the temperate moist forests of the South-Eastern USA. Parity times against site protection or continued timber harvest with fossil fuel reference (BAU) are at maximum 50 years for these conditions.^{29,61} In the (sub-) boreal region, parity times against forest protection (and fossil fuel energy generation) are about twice as large but variations between studies,^{18,25,30,33} mostly linked to forest management and reference case assumptions, exist. Under specific conditions, as for example, those in British Columbia where insect infestation has killed a large amount of merchantable timber stock, bioenergy harvest can reach parity times as low as zero.³⁰ Here, a high share of naturally decaying tree biomass in the protection reference shortens parity times, unless the disturbed forest regenerates quickly. Parity times against regular timber harvest (BAU) vary greatly with the fossil fuel reference, the shortest being coal and oil compared to natural gas. The forest management regime influences parity times in the sense that the harvest intensity (or outtake level) needs to be adapted to the respective biome and site productivity in order not to exceed sustainable yield levels. Shortening rotation times or increasing the amount of fellings in less productive regions, for example, the boreal forest biome, increases parity times to several centuries.^{21,53} Afforestation on the other hand has a parity time of zero years given that the land would not be sequestering large amounts of carbon otherwise.

Discussion and conclusion

Key influencing factors

Differences in the modeling framework and parameterization are the main distinctions between current temporal

Table 2. Carbon parity times for different biomass types by biome and reference case.

Biomass type	Biome: reference case	Min	Max	Studies: forest management regime
Residues/ Slash ^a	(Sub-) Boreal: BAU + coal based electricity	0	16	^{23,24,30,33,53} : collection instead of slash-burn or decay
	(Sub-) Boreal: BAU + oil based electricity	3	24	^{23,24,53} : collection instead of decay
	(Sub-) Boreal: BAU + natural gas based electricity	4	44	^{23,24,53} : collection instead of decay
(low-grade) Roundwood ^b	Temperate southern: Protection ^c + coal electricity	12	46	²⁹ : thinnings and additional fellings on existing plantations (20-25 year rotation)
	Temperate southern: BAU + fossil electricity mix	35	50	⁶¹ : thinnings and additional fellings on existing plantations (35 year rotation)
	(Sub-) Boreal: Protection + coal electricity	0	105	^{25,30,33} : additional fellings in previously unmanaged forest
	(Sub-) Boreal: Protection + oil heating	90		¹⁸ : additional fellings in previously unmanaged forest
	(Sub-) Boreal: BAU + coal electricity	53	230	^{21,30,53} : additional fellings in previously un-/managed forest
	(Sub-) Boreal: BAU + coal electricity	17	114	⁵³ : clear-cut replaced with SRC ^d (10-20 year rotation)
	(Sub-) Boreal: BAU + oil electricity	20	145	⁵³ : clear-cut replaced with SRC ^d (10-20 year rotation)
	(Sub-) Boreal: BAU + natural gas electricity	25	197	⁵³ : clear-cut replaced with SRC ^d (10-20 year rotation)
	(Sub-) Boreal: BAU + natural gas electricity	300	400	⁵³ : additional fellings in managed forests
	(Sub-) Boreal: BAU + fossil electricity	0	0	⁵³ : afforestation

Applied definitions:

^aSlash: residues from timber harvesting including tops and branches (possibly also stumps in the case of Finland and parts of Sweden) of harvested/merchantable trees, whole non-merchantable trees (e.g. standing, cracked deadwood).

^bDedicated removal/harvest of round-/stemwood for energy will foremost target low-grade timber fractions (e.g. pulpwood). It is highly unlikely that sawlog quality stemwood systematically ends up as bioenergy feedstock. Low-grade timber harvest typically includes operations such as:

Thinnings: pre-/commercial cutting of selected rows/individual trees to allow a stronger growth of remaining trees.

Additional fellings: increased harvesting intensity in a defined region i.e. higher biomass outtake than under a BAU scenario (i.e. timber harvest).

^c'Protection' equals no harvest.

^dSRC: Short rotation coppice (dedicated energy plantation) with a high (10 year) and low (20 year) productivity.

forest carbon analyses. Across these studies however, there is a set of key factors that influence carbon payback and parity times (Table 3).

Pre-harvest

First and foremost, we need to consider the carbon volume sequestered in the living plant stock prior to harvest. This is directly connected to prior land-use and forest management regimes in the specific case of woody biomass. If land-use change is assumed to occur or can be linked to the bioenergy system, respective carbon emissions, for example, from peatland drainage for plantation set-up, can jeopardize any temporal carbon savings.^{8,9,62} Land-use change however can also have positive effects in the case of afforestation.¹⁰ The most important pre-harvest, general condition influencing the carbon payback/parity times is the plant growth rate, which in turn is determined by the biome, site productivity, tree species, and management regime. Carbon payback/parity times tend to be shorter for intense (e.g. plantations)

compared to extensive silvicultural regimes (e.g. natural regeneration).²⁵ At the same time, a change in forest management regime, for example, the shortening of rotation cycles can possibly alter age structures in a forest landscape which eventually reduces the temporal carbon storage and may lead to longer payback/parity periods for bioenergy scenarios.^{14,18,32,35} The management regime should thus be adapted to the respective site conditions.

Harvest

Second, the type of harvested woody biomass used has a dramatic effect on the payback and parity times. This is foremost linked to the size and sequestered carbon volume in the biomass^{23,24} and the respective counterfactual, i.e. what happens without biomass for energy harvest. Thus, the collection of residues from existing timber operations provides material which would have released its carbon (via decay or burning) back to the atmosphere anyway (over time spans defined by the biome's decay rate) while green

Table 3. Key influencing factors on carbon payback/parity times.

Key influencing factor	Increasing carbon payback/parity time (from left to right)		
Land-use/ -management	Change involving carbon uptake (e.g. afforestation)		Change involving carbon release (e.g. peatland drainage)
Silvicultural regime ⁵⁹	Intensive even-aged forestry (e.g. dedicated replanting with highly productive seeds, fertilization, etc.)		Extensive, close-to-nature forestry (e.g. natural regeneration)
Plant growth rate	High (e.g. tropical)	Medium (e.g. temperate)	Low (e.g. boreal)
Carbon content of harvested biomass	Low (e.g. branches)	Medium (e.g. stumps)	High (e.g. stems)
Harvest share of living biomass	Low (e.g. higher deadwood share)	Medium	High (e.g. green tree harvest)
Harvesting intensity	Low (e.g. residues only)	Medium	High (e.g. whole-trees)
Fossil fuel conversion efficiency reference	Low (e.g. old coal power plant)	Medium	High (e.g. new gas CHP plant)
Biomass to energy conversion efficiency	High	Medium	Low
Carbon intensity of substituted fossil fuel	High (e.g. coal)	Medium (e.g. oil)	Low (e.g. natural gas)
Share of otherwise decaying biomass	High	Medium	Low

tree harvest reduces the pool of living and thus future carbon stocks. In this regard, the volume of deadwood assumed to be present in the baseline can have a dramatic effect on payback/parity times. Simulations for varying degrees of insect infested forests³⁰ revealed that sites with a higher kill rate (of previously living forests) have a much slower regeneration back to previous carbon levels, and thereby may become a net source of carbon over several decades.^{63,64}

Post-harvest

The third group of assumptions concerns post-harvest carbon cycling. In line with early sensitivity analyses,^{42,58} we find that influencing factors largely include the efficiency of the biomass to energy conversion chain, the amount of additional fossil fuel emissions, and whether or not carbon storage in landfills (with or without methane capture/flaring) is accounted for. Regarding the baseline construction, carbon emission rates and the efficiency of the respective products and fossil energy replaced are the most important variables.

Current range of main uncertainties and requirements for future research

Soil carbon dynamics

Soil carbon dynamics are complex and little empirical data is available from long-term field-tests regarding woody biomass for energy harvest in forests.^{65,66} Of major relevance is the amount of biogenic carbon from residue material (harvest residues) sequestered within the soil over time (from instable above- and belowground to stable

belowground carbon pools) and whether stable carbon pools (mineral soil carbon) are potentially disturbed and reduced due to harvest. On the latter point, some studies suggest,³⁹ that soil carbon stocks decline but stabilize over longer time due to intensified harvest. Error margins though could dramatically affect payback/parity times due to the sheer size of soil carbon stocks in boreal forests. Further research is needed to reduce such uncertainties.

Reference fossil fuel

A coherent approach should be followed for the choice of the reference (fossil) fuel. Three basic options exist:

- (1) Substitution (de facto fuel substitution, e.g. co-firing wood pellets in coal power plants).
- (2) Replacement of the average energy mix (as proposed e.g. by the European Commission).
- (3) Replacement of the marginal energy production technology (along the merit-order) that would have been used/built had biomass not been used for energy (e.g. a modern natural-gas-fueled combined-cycle plant).

So far, all studies also assume constant conversion efficiencies of the fossil reference system. Given the often long payback times of the bioenergy systems investigated, this causes additional uncertainty. It is widely believed that, for example, fossil fuel electricity generation will become more efficient and the penetration of other renewable energy sources will continue lowering the average GHG emission per kWh. On the other hand, the conversion of biomass to electricity is also likely to become more efficient, and could potentially even be con-

nected to carbon capture and storage (Bio-CCS). Biomass is expected to be used in various conversion processes than solely electricity and heat generation in the future. While first analysis on the temporal carbon balance of, for example, lignocellulosic ethanol exist³³ more research will be needed in this area.

Counterfactual definition and market dynamics

Thorough analysis has to be spent on defining the most likely, i.e. realistic counterfactual to (no) bioenergy harvest including an accounting for potential displacement effects. Bioenergy systems are typically connected to existing forestry industries (whether previously unmanaged or managed forest is used).²⁸ Thus bioenergy extraction takes place within existing demand-supply patterns for other woody biomass products (primarily timber and cellulose). Forest protection is – for example, from a nature conservancy viewpoint – a valid baseline case. It would have to be evaluated holistically however, i.e. include carbon emissions from displacement effects (e.g. land-use change in other world regions) and socio-economic consequences. Required research to establish most realistic baseline scenarios include for example an analysis of macro-economic drivers for additional land-use, possibly linked to spatially-explicit analysis where this is most likely to occur (e.g. based on limitations such as required logistic infrastructure, price and suitability of land, etc., as done by Verstegen *et al.*⁶⁷).

Along these lines, as a first step, we recommend linking temporal carbon research with fiber market data and thus to current sourcing practices and economic bioenergy potentials. The vast majority of wood pellets imported to Europe for co-firing are based on processing and harvesting residues with an increasing though still minor share from low-grade roundwood.^{27,28} Generally, the higher economic value for timber and cellulose products makes large-scale use of whole-trees for energy purposes highly unlikely wherever there is regional competition for the fiber.⁶⁸ At the same time, the technical potential of harvesting residues is high in many of the world's 'fiber-baskets', and is thus more likely to be used as feedstock when process-based wood waste streams become scarce.

Lessons for policymakers

The debate of the carbon consequences of bioenergy has highlighted the importance of considering time scales when comparing alternative energy supply and GHG mitigation options. Forest bioenergy is a case in point as short-term renewable energy consumption targets, for example, by the European Union (EU) for 2020,⁶⁹ may have climate effects

beyond these timescales. Integrating forest biomass into these seemingly conflicting targets is not straight forward. A first step for policymakers could be to decide whether bioenergy should contribute to short- or long-term emission savings. As the reviewed studies show, the majority of options investigated indicate a possibility to achieve emission reductions in the long-term. While these strategies would involve a short-term biogenic carbon pulse, the emitted carbon would be (re-) sequestered via plant growth within a tree life-span. 2050 and 2100 are often used as carbon level reference points; also in relation to bioenergy.^{70,71} Since energy systems, fossil and bioenergy, have lifetimes of typically 20 to 30 years, we deem 2050 as the better alternative for policy choices regarding bioenergy.

There are also a number of feedstock options which offer (almost) immediate net carbon benefits, provided they substitute GHG intensive fossil fuels. These include the use of (i) harvesting or processing residues,^{23,24,30,33,53,72} (ii) standing deadwood from highly insect-infected sites,³⁰ and (iii) new plantations on highly productive or marginal/previously unused (and carbon poor) land.^{29,53} Previously, such options were coined 'additional carbon',³ i.e. biomass which either grows in excess to current volumes (e.g. yield increases on existing plantations) or whose carbon would have been released back into the atmosphere relatively rapidly anyway (e.g. via decay). None of these options however can be seen as a silver bullet as their overall climate mitigation potential is determined by the effectiveness of their fossil fuel displacement. We deem it therefore unsuitable to define political guidance (e.g. support measures or exclusions) by feedstock alone. There always needs to be an accounting of the fossil fuel and regional forest carbon reference.

The continued import dependency of the EU regarding woody biomass for energy, in particular wood pellets for large-scale co- and mono-firing, makes the current debate on the temporal carbon balance of bioenergy particularly relevant for European policy makers. We think the discussion so far suppresses that current wood pellet import streams are predominantly residue based while (low-grade) roundwood still plays a marginal role.^{27,28,73} Yet many temporal carbon analyses focused on whole-tree harvesting in (sub-) boreal regions. Future EU import streams will likely continue to be dominated by North America,⁷⁴ especially from the South-East USA where an increasing share is based on pulp-grade plantation roundwood from the temperate southern forest biome. The wood fiber demand increase for pellet production in this region however coincides with a steady downturn of the US forest products sector (since 2006)⁷⁵ and a regional oversupply of pulp-grade round-

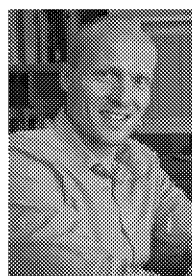
wood. This highlights the importance of putting temporal carbon balances into regional market perspectives when defining future policy measures.

References

- Johnson E, Goodbye to carbon neutral: Getting biomass footprints right. *Environ Impact Assess* **29**(3):165–168 (2009).
- Searchinger TD, Hamburg SP, Melillo J, Chameides W, Havlik P, Kammen DM *et al.*, Fixing a critical climate accounting error. *Science* **326**(5952):527–528 (2009).
- Searchinger TD, Biofuels and the need for additional carbon. *Environ Res Lett* **5**(2):024007 (2010).
- Haberl H, Sprinz D, Bonazountas M, Cocco P, Desaubies Y, Henze M *et al.*, Correcting a fundamental error in greenhouse gas accounting related to bioenergy. *Energy Policy* **45**:18–23 (2012).
- Schulze E-D, Körner C, Law BE, Haberl H and Luyssaert S, Large-scale bioenergy from additional harvest of forest biomass is neither sustainable nor greenhouse gas neutral. *GCB Bioenergy* **4**(6):611–616 (2012).
- Bright RM, Cherubini F, Astrup R, Bird N, Cowie AL, Ducey MJ *et al.*, A comment to 'Large-scale bioenergy from additional harvest of forest biomass is neither sustainable nor greenhouse gas neutral': Important insights beyond greenhouse gas accounting. *GCB Bioenergy* **4**(6):617–619 (2012).
- Haberl H, Schulze E-D, Körner C, Law BE, Holtsmark B and Luyssaert S, Response: Complexities of sustainable forest use. *GCB Bioenergy* **5**(1):1–2 (2013).
- Fargione J, Hill J, Tilman D, Polasky S and Hawthorne P, Land clearing and the biofuel carbon debt. *Science* **319**(5867):1235–1238 (2008).
- Melillo J, Reilly J, Kicklighter D, Gurgel A, Cronin T, Paltsev S *et al.*, Indirect emissions from biofuels: How important? *Science* **326**:1397–1399 (2009).
- Berndes G, Ahlgren S, Börjesson P and Cowie AL, Bioenergy and land use change - state of the art. *WIRE Energy Environ*, online early view DOI: 10.1002/wene.41 <http://onlinelibrary.wiley.com/doi/10.1002/wene.41/abstract> (2013).
- Cherubini F and Stromman AH, Life cycle assessment of bioenergy systems: State of the art and future challenges. *Bioresour Technol* **102**(2):437–451 (2011).
- Hoefnagels R, Smeets E and Faaij A, Greenhouse gas footprints of different biofuel production systems. *Renew Sust Energy Rev* **14**(7):1661–1694 (2010).
- Helin T, Sokka L, Soimakallio S, Pingoud K and Pajula T, Approaches for inclusion of forest carbon cycle in life cycle assessment – a review. *GCB Bioenergy*:early online view, DOI: 10.1111/gcbb.12016 <http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12016/abstract> (2012).
- Harmon ME, Ferrell WK and Franklin JF, Effects on carbon storage of conversion of old-growth forests to young forests. *Science* **247**(4943):699–702 (1990).
- MANOMET. *Biomass Sustainability and Carbon Policy Study Manomet*. [Online]. Manomet Center for Conservation Sciences, Massachusetts, USA (2010). Available at: http://www.manomet.org/sites/manomet.org/files/Manomet_Biomass_Report_Full_LoRez.pdf [5 August 2012].
- Lippke B, Oneil E, Harrison R, Skog K, Gustavsson L and Sathre R, Life cycle impacts of forest management and wood utilization on carbon mitigation: Knowns and unknowns. *Carbon Manage* **2**(3):303–333 (2011).
- Bowyer C, Baldock D, Kretschmer B and Polakova J, *The GHG emissions intensity of bioenergy: Does bioenergy have a role to play in reducing GHG emissions of Europe's economy?* [Online]. Institute for European Environmental Policy (IEEP), London, UK (2012). Available at: http://www.ieep.eu/assets/1008/IEEP_-_The_GHG_Emissions_Intensity_of_Bioenergy_-_October_2012.pdf [11 November 2012].
- Bernier P and Paré D, Using ecosystem CO₂ measurements to estimate the timing and magnitude of greenhouse gas mitigation potential of forest bioenergy. *GCB Bioenergy* **5**(1):67–72 (2013).
- Cherubini F, Peters GP, Berntsen T, Stromman AH and Hertwich E, CO₂ emissions from biomass combustion for bioenergy: Atmospheric decay and contribution to global warming. *GCB Bioenergy* **3**(5):413–426 (2011).
- Cherubini F, Stromman AH and Hertwich E, Effects of boreal forest management practices on the climate impact of CO₂ emissions from bioenergy. *Ecolog Modell* **223**(1):59–66 (2011).
- Holtsmark B, Harvesting in boreal forests and the biofuel carbon debt. *Climatic Change* **112**(2):415–428 (2012).
- Hudiburg TW, Law BE, Wirth C and Luyssaert S, Regional carbon dioxide implications of forest bioenergy production. *Nat Clim Change* **1**(8):419–423 (2011).
- Repo A, Känkänen R, Tuovinen J-P, Antikainen R, Tuomi M, Vanhala P *et al.*, Forest bioenergy climate impact can be improved by allocating forest residue removal. *GCB Bioenergy* **4**(2):202–212 (2011).
- Repo A, Tuomi M and Liski J, Indirect carbon dioxide emissions from producing bioenergy from forest harvest residues. *GCB Bioenergy* **3**(2):107–115 (2011).
- Ter-Mikaelian M, McKechnie J, Colombo S, Chen J and MacLean H, The carbon neutrality assumption for forest bioenergy: A case study for northwestern Ontario. *Forest Chron* **87**(05):644–652 (2011).
- Atanasiu B, *The role of bioenergy in the National Renewable Energy Action Plans: a first identification of issues and uncertainties*. [Online]. Institute for European Environmental Policy (IEEP), London and Brussels (2010). Available at: http://www.ieep.eu/assets/753/bioenergy_in_NREAPs.pdf [25 November 2012].
- Cocchi M, Nikolaisen L, Junginger M, Goh C, Heinimö J, Bradley D *et al.*, *Global wood pellet industry and market study*. [Online]. IEA Bioenergy Task 40 (2011). Available at: http://www.bioenergytrade.org/downloads/t40-global-wood-pellet-market-study_final.pdf [January 2012].
- Lamers P, Junginger M, Hamelinck C and Faaij A, Developments in international solid biofuel trade - an analysis of volumes, policies, and market factors. *Renew Sust Energy Rev* **16**(5):3176–3199 (2012).
- Jonker G-J, Junginger M and Faaij A, Carbon payback period and carbon offset parity point of wood pellet production in the Southeastern USA. *GCB Bioenergy*, in press (2013).
- Lamers P, Junginger M, Dymond CC and Faaij APC, Damaged forests provide an opportunity to mitigate climate change. *GCB Bioenergy*, online early view DOI: 10.1111/gcbb.12055 <http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12055/abstract> (2013).
- EUROSTAT, *Data Explorer - EU27 Trade Since 1995 By CN8*. [Online]. Eurostat, Brussels, Belgium. Available at: <http://epp>.

- eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [15 January 2013].
32. Holtmark B, The outcome is in the assumptions: Analyzing the effects on atmospheric CO₂ levels of increased use of bioenergy from forest biomass. *GCB Bioenergy*, online early view DOI: 10.1111/gcbb.12015 <http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12015/abstract> (2013).
 33. McKechnie J, Colombo S, Chen J, Mabee W and Maclean HL, Forest bioenergy or forest carbon? Assessing trade-offs in greenhouse gas mitigation with food-based fuels. *Environ Sci Technol* **45**(2):789–795 (2011).
 34. Gibbs HK, Johnston M, Foley JA, Holloway T, Monfreda C, Ramankutty N *et al.*, Carbon payback times for crop-based biofuel expansion in the tropics: The effects of changing yield and technology. *Environ Res Lett* **3**(3):034001 (2008).
 35. Mitchell SR, Harmon ME and O'Connell KEB, Carbon debt and carbon sequestration parity in forest bioenergy production. *GCB Bioenergy* **4**(6):818–827 (2012).
 36. Marland G and Schlamadinger B, Biomass fuels and forest-management strategies: How do we calculate the greenhouse-gas emissions benefits? *Energy* **20**(11):1131–1140 (1995).
 37. Marland G, Schlamadinger B and Leiby P, Forest/biomass based mitigation strategies: Does the timing of carbon reductions matter? *Crit Rev Environ Sci Technol* **27**(1):213–226 (1997).
 38. Schlamadinger B and Marland G, The role of forest and bioenergy strategies in the global carbon cycle. *Biomass Bioenergy* **10**(5–6):275–300 (1996).
 39. Eliasson P, Svensson M, Olsson M and Ågren G, Forest carbon balances at the landscape scale investigated with the Q model and COUPModel - responses to intensified harvests. *Forest Ecol Manag* **290**:67–78 (2013).
 40. Schwalm CR, Williams CA, Schaefer K, Anderson R, Arain MA, Baker I *et al.*, A model-data intercomparison of CO₂ exchange across North America: Results from the North American Carbon Program site synthesis. *J Geophys Res Biogeosci* **115**:G00H5 (2010).
 41. Amiro BD, Barr AG, Barr JG, Black TA, Bracho R, Brown M *et al.*, Ecosystem carbon dioxide fluxes after disturbance in forests of North America. *J Geophys Res Biogeosci* **115**:G00K2 (2010).
 42. Schlamadinger B and Marland G, Full fuel cycle carbon balances of bioenergy and forestry options. *Energy Convers Manage* **37**(6/8):813–818 (1996).
 43. Schlamadinger B and Marland G, Net effect of forest harvest on CO₂ emissions to the atmosphere: A sensitivity analysis on the influence of time. *Tellus B* **51**(2):314–325 (1999).
 44. Joos F, Roth R, Fuglestad JS, Peters GP, Enting IG, von Bloh W *et al.*, Carbon dioxide and climate impulse response functions for the computation of greenhouse gas metrics: A multi-model analysis. *Atmos Chem Phys Discuss* **12**(8):19799–19869 (2012).
 45. Peters GP, Aamaas B, Lund MT, Solli C and Fuglestad JS, Alternative “global warming” metrics in life cycle assessment: A case study with existing transportation data. *Environ Sci Technol* **45**(20):8633–8641 (2011).
 46. Cherubini F, Bright RM and Stromman AH, Site-specific global warming potentials of biogenic CO₂ for bioenergy: Contributions from carbon fluxes and albedo dynamics. *Environ Res Lett* **7**(4):045902 (2012).
 47. Cherubini F, Guest G and Stromman AH, Application of probability distributions to the modeling of biogenic CO₂ fluxes in life cycle assessment. *GCB Bioenergy* **4**(6):784–798 (2012).
 48. Böttcher H, Verkerk PJ, Gusti M, Havlík P and Grassi G, Projection of the future EU forest CO₂ sink as affected by recent bioenergy policies using two advanced forest management models. *GCB Bioenergy* **4**(6):773–783 (2012).
 49. Böttcher H, Freibauer A, Scholz Y, Gitz V, Ciais P, Mund M *et al.*, Setting priorities for land management to mitigate climate change. *Carbon Balance Manag* **7**(5) (2012).
 50. Schwarzbauer P and Stern T, Energy vs. material: Economic impacts of a “wood-for-energy scenario” on the forest-based sector in Austria — A simulation approach. *Forest Policy Econ* **12**(1):31–38 (2010).
 51. Havlík P, Schneider UA, Schmid E, Böttcher H, Fritz S, Skalský R *et al.*, Global land-use implications of first and second generation biofuel targets. *Energy Policy* **39**(10):5690–5702 (2011).
 52. Whiteman A, *Recent trends and developments in global markets for pulp and paper*. [Online]. Paperex' 2005 – International Technical Conference on Pulp and Paper Industry, 3–5 December, New Delhi, India (2005). Available at: <http://www.fao.org/docrep/008/af303e/af303e00.htm> [1 February 2013].
 53. Zanchi G, Pena N and Bird N, Is woody bioenergy carbon neutral? A comparative assessment of emissions from consumption of woody bioenergy and fossil fuel. *GCB Bioenergy* **4**(6):761–772 (2012).
 54. Earles JM, Yeh S and Skog KE, Timing of carbon emissions from global forest clearance. *Nature Clim Change*, **2**(9): 682–685 (2012).
 55. Ingerson A, Carbon storage potential of harvested wood: Summary and policy implications. *Mitig Adapt Strateg Glob Change* **16**(3):307–323 (2011).
 56. Price D, Mair R, Kurz W and Apps M, Effects of forest management, harvesting and wood processing on ecosystem carbon dynamics: A boreal case study, in *Forest Ecosystems, Forest Management and the Global Carbon Cycle*, ed by Apps M and Price D. Springer-Verlag, Heidelberg, Germany. pp. 279–292 (1996).
 57. York R, Do alternative energy sources displace fossil fuels? *Nat Clim Change* **2**(6):441–443 (2012).
 58. Marland G and Schlamadinger B, Forests for carbon sequestration or fossil fuel substitution? A sensitivity analysis. *Biomass Bioenergy* **13**(6):389–397 (1997).
 59. Dunker P, Barreiro S, Hengeveld G, Lind T, Mason W, Ambrozio S *et al.*, Classification of forest management approaches: A new methodological framework and its applicability to European forestry. *Ecol Soc* **17**(4):51 (2012).
 60. Galik CS and Abt RC, The effect of assessment scale and metric selection on the greenhouse gas benefits of woody biomass. *Biomass Bioenergy* **44**(0):1–7 (2012).
 61. BERC, *Biomass supply and carbon accounting for southeastern forests*. [Online]. Biomass Energy Resource Center, Forest Guild, Spatial Informatics Group, Montpelier, VT, USA. (2012). Available at: <http://www.southernenvironment.org/uploads/publications/biomass-carbon-study-FINAL.pdf> [2 February 2012].
 62. Lapola DM, Schaldach R, Alcamo J, Bondeau A, Koch J, Koelking C *et al.*, Indirect land-use changes can overcome

- carbon savings from biofuels in Brazil. *P Natl Acad Sci* **107**(8):3388–3393 (2010).
63. Kurz WA, Dymond CC, Stinson G, Rampley GJ, Neilson ET, Carroll AL *et al.*, Mountain pine beetle and forest carbon feedback to climate change. *Nature* **452**(7190):987–990 (2008).
 64. Kurz WA, Stinson G, Rampley GJ, Dymond CC and Neilson ET, Risk of natural disturbances makes future contribution of Canada's forests to the global carbon cycle highly uncertain. *P Natl Acad Sci* **105**(5):1551–1555 (2008).
 65. Lamers P, Thiffault E, Paré D and Junginger HM, Feedstock specific environmental risk levels related to biomass extraction for energy from boreal and temperate forests. *Biomass Bioenerg*, in press, <http://dx.doi.org/10.1016/j.biombioe.2013.02.002> (2013).
 66. Thiffault E, Hannam K, Paré D, Titus B, Hazlett P, Maynard D *et al.*, Effects of forest biomass harvesting on soil productivity in boreal and temperate forests - a review. *Environ Rev* **19**:278–309 (2011).
 67. Verstegen JA, Karssenberg D, Van der Hilst F and Faaij A, Spatio-temporal uncertainty in spatial decision support systems: A case study of changing land availability for bioenergy crops in Mozambique. *Comput Environ Urban* **36**(1):30–42 (2011).
 68. Munsell JF and Fox TR, An analysis of the feasibility for increasing woody biomass production from pine plantations in the southern United States. *Biomass Bioenerg* **34**(12):1631–1642 (2010).
 69. EC, Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC. European Commission, Brussels (2009).
 70. Berndes G, Bioenergy's contribution to climate change mitigation – a matter of perspectives. *Biofuel Bioprod Bioref* **6**:233–235 (2012).
 71. Dehue B, Implications of a “carbon debt” on bioenergy's potential to mitigate climate change. *Biofuel Bioprod Bioref*, early online view, <http://onlinelibrary.wiley.com/doi/10.1002/bbb.1383/abstract> (2013).
 72. Guest G, Cherubini F and Stromman AH, The role of forest residues in the accounting for the global warming potential of bioenergy. *GCB Bioenerg*, online early view <http://onlinelibrary.wiley.com/doi/10.1111/gcbb.12014/abstract> (2012).
 73. Alakangas E, Junginger M, van Dam J, Hinge J, Keränen J, Olsson O *et al.*, EUBIONET III—Solutions to biomass trade and market barriers. *Renew Sust Energy Rev* **16**(6):4277–4290 (2012).
 74. Goh CS, Junginger M, Cocchi M, Marchal D, Thrän D, Hennig C *et al.*, Wood pellet market and trade: A global perspective. *Biofuel Bioprod Bioref* **7**(1):24–42 (2013).
 75. Woodall CW, Ince PJ, Skog KE, Aguilar FX, Keegan CE, Sorenson CB *et al.*, An overview of the forest products sector downturn in the United States. *Forest Prod J* **61**(8):595–603 (2012).



Patrick Lamers

Patrick Lamers (MSc, MSc), Researcher at Copernicus Institute, Utrecht University and Ecofys, works and publishes on global bioenergy trade and sustainability. In the past, he drafted corporate sustainable biomass due diligence processes and contributed e.g. to publications of the IPCC.



Martin Junginger

Dr Martin Junginger works as Assistant Professor at the Copernicus Institute, Utrecht University on biomass sustainability, biomass trade and technological learning. He is leader of IEA Bioenergy Task 40 on sustainable international bioenergy trade.

Message

From: Svendsgaard, Dave [Svendsgaard.Dave@epa.gov]
Sent: 12/3/2019 7:39:00 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: PSD Biomass Exemption Reg Text
Attachments: PSD Biomass Exemption Reg Text djs.docx

Sarah,
Attached are a couple of my thoughts.
Dave

From: Baker, Sarah
Sent: Tuesday, December 03, 2019 2:04 PM
To: Svendsgaard, Dave <Svendsgaard.Dave@epa.gov>
Subject: FW: PSD Biomass Exemption Reg Text

Dave-

Attached is the reg language that Brian wrote up.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Sarah

https://usepa.sharepoint.com/:w:/r/sites/OAR_Custom/BiomassBACTGuidanceRevision/Shared%20Documents/Rulemaking/Rule%2010-28-19.docx?d=w87d4d7618bae4ca2bec96e59ed0e28&csf=1&e=OCnjzU

From: Doster, Brian <Doster.Brian@epa.gov>
Sent: Tuesday, December 03, 2019 12:04 PM
To: Baker, Sarah <baker.sarah@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Krallman, John <krallman.john@epa.gov>; Ohrel, Sara <Ohrel.Sara@epa.gov>; Steller, John <Steller.John@epa.gov>
Subject: PSD Biomass Exemption Reg Text

Ex. 5 Attorney Client (AC)

Message

From: Ohrel, Sara [Ohrel.Sara@epa.gov]
Sent: 11/21/2019 3:39:05 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: Biogenic CO2 Rulemaking Waiver Forms

Hi there --

I haven't forgotten. I aim to get these to you today. Sorry for the delay

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, November 07, 2019 2:43 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>
Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Biogenic CO2 Rulemaking Waiver Forms
Importance: High

All-

As we discussed

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Feel free to let me know if you

have any questions or concerns. Thanks.

Respectfully,
Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Shepherd, Lorinda [Shepherd.Lorinda@epa.gov]
Sent: 11/20/2019 9:06:59 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms

Thanks.

If you have any information [Ex. 5 Deliberative Process (DP)]

Ex. 5 Deliberative Process (DP)

Regards,
Lori Shepherd
U.S. EPA Region 4
Air Permitting Section
(404)562-8435

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Wednesday, November 20, 2019 3:16 PM
To: Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>
Subject: RE: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms

Thank you!!! If you have any questions about the process, please just let me know. Right now I'm trying to draft a

Ex. 5 Deliberative Process (DP)

you want more details on anything. Thanks!
Sarah

From: Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>
Sent: Wednesday, November 20, 2019 3:06 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms

Hi, Sarah.

My waiver forms are attached. Please let me know if anything else is needed.

Regards,
Lori Shepherd
U.S. EPA Region 4
Air Permitting Section
(404)562-8435

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, November 14, 2019 12:43 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>
Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: FW: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms
Importance: High

We have a quick check in scheduled with Anne Idsal for Monday.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thank you.

Respectfully,

Sarah

Potential Rulemaking Timeline (Estimated) for Rule 1

Milestone

Managed Forest biomass RM

Ex. 5 Deliberative Process (DP)

From: Baker, Sarah

Sent: Thursday, November 07, 2019 2:43 PM

To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>

Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: Biogenic CO2 Rulemaking Ex. 5 Deliberative Process (DP) Forms

Importance: High

All-

As we discussed during our

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Feel free to let me know if you

have any questions or concerns. Thanks.

Respectfully,

Sarah

Sarah Baker

Environmental Protection Specialist

Air Quality Policy Division, Operating Permits Group

U.S. EPA, Office of Air Quality Planning and Standards

(919) 541-4846 / baker.sarah@epa.gov

Message

From: Mitchell, Ken [Mitchell.Ken@epa.gov]
Sent: 11/18/2019 2:18:45 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: FW: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms

Sarah...

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Kenneth L. Mitchell, Ph.D. | Acting Director |
Air and Radiation Division
U.S. Environmental Protection Agency | 61 Forsyth Street, SW | Atlanta, GA 30303
Voice: 404-562-9065 | Fax: 404-562-9066 | Email: mitchell.ken@epa.gov

NOTICE: This communication may contain privileged or other confidential information. If you are not the intended recipient, or believe that you have received this communication in error, please do not print, copy, retransmit, disseminate, or otherwise use the information. Also, please indicate to the sender that you have received this communication in error, and delete the copy you received.

From: Worley, Gregg <Worley.Gregg@epa.gov>
Sent: Monday, November 18, 2019 7:26 AM
To: Fortin, Kelly <Fortin.Kelly@epa.gov>; Mitchell, Ken <Mitchell.Ken@epa.gov>
Cc: Benjamin, Lynorae <benjamin.lynorae@epa.gov>
Subject: RE: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms

Ex. 5 Deliberative Process (DP)

From: Fortin, Kelly <Fortin.Kelly@epa.gov>
Sent: Friday, November 15, 2019 5:45 PM
To: Mitchell, Ken <Mitchell.Ken@epa.gov>; Worley, Gregg <Worley.Gregg@epa.gov>
Cc: Benjamin, Lynorae <benjamin.lynorae@epa.gov>
Subject: FW: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms
Importance: High

Please see message below:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Kelly

From: Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>
Sent: Friday, November 15, 2019 11:00 AM
To: Fortin, Kelly <Fortin.Kelly@epa.gov>
Subject: FW: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms
Importance: High

Lori Shepherd
U.S. EPA Region 4
Air Permitting Section
(404)562-8435

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, November 14, 2019 12:43 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>
Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: FW: Biogenic CO2 Rulemaking [REDACTED] Forms
Importance: High

We have a quick check in scheduled with Anne Idsal for Monday.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

please let me know if you have any questions or concerns.

Thank you.
Respectfully,
Sarah

Potential Rulemaking Timeline (Estimated) for Rule 1

Ex. 5 Deliberative Process (DP)

From: Baker, Sarah
Sent: Thursday, November 07, 2019 2:43 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>

Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>

Subject: Biogenic CO2 Rulemaking[Ex. 5 Deliberative Process (DP)] Forms

Importance: High

All-

As we discussed during our

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Feel free to let me know if you

have any questions or concerns. Thanks.

Respectfully,

Sarah

Sarah Baker

Environmental Protection Specialist

Air Quality Policy Division, Operating Permits Group

U.S. EPA, Office of Air Quality Planning and Standards

(919) 541-4846 / baker.sarah@epa.gov

Message

From: Elman, Barry [Elman.Barry@epa.gov]
Sent: 11/15/2019 9:23:51 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms

Sarah,

Ex. 5 Deliberative Process (DP)

Barry

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, November 14, 2019 12:43 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>
Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: FW: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms
Importance: High

We have a quick check in scheduled with Anne Idsal for Monday.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

As always, please let me know if you have any questions or concerns.

Thank you.

Respectfully,
Sarah

Potential Rulemaking Timeline (Estimated) for Rule 1

Ex. 5 Deliberative Process (DP)

From: Baker, Sarah
Sent: Thursday, November 07, 2019 2:43 PM
To: Ohrel, Sara <Ohrel.Sara@epa.gov>; Doster, Brian <Doster.Brian@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Toups, Brad <Toups.Brad@epa.gov>
Cc: Elman, Barry <Elman.Barry@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Biogenic CO2 Rulemaking [Ex. 5 Deliberative Process (DP)] Forms
Importance: High

All-

As we discussed during our

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Feel free to let me know if you

have any questions or concerns. Thanks.

Respectfully,
Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

Message

From: Johnson, Yvonne W [Johnson.Yvonnew@epa.gov]
Sent: 11/15/2019 4:24:44 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: Materials for the Idsal Biogenic meeting on Monday 11/18

Thank you. I did realize you were not on the original email that darcie sent.

Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonnew@epa.gov

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Friday, November 15, 2019 11:21 AM
To: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: RE: Materials for the Idsal Biogenic meeting on Monday 11/18

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!

Sarah

From: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>
Sent: Friday, November 15, 2019 11:16 AM
To: Baker, Sarah <baker.sarah@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>; Santiago, Juan <Santiago.Juan@epa.gov>
Cc: Long, Pam <Long.Pam@epa.gov>
Subject: FW: Materials for the Idsal Biogenic meeting on Monday 11/18
Importance: High

Can someone answer this question. 4th floor is asking for a reply. Thanks.

Thank you,

Yvonne W. Johnson

Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency

919-541-3921
johnson.yvonne@epa.gov

From: Smith, Darcie <Smith.Darcie@epa.gov>
Sent: Thursday, November 14, 2019 4:48 PM
To: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>; Koerber, Mike <Koerber.Mike@epa.gov>
Cc: Santiago, Juan <Santiago.Juan@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: RE: Materials for the Idsal Biogenic meeting on Monday 11/18

Ex. 5 Deliberative Process (DP)

Darcie Smith
U.S. EPA, OAQPS
919.541.2076
smith.darcie@epa.gov

From: Johnson, Yvonne W <Johnson.Yvonne@epa.gov>
Sent: Thursday, November 14, 2019 3:13 PM
To: Koerber, Mike <Koerber.Mike@epa.gov>; Smith, Darcie <Smith.Darcie@epa.gov>
Cc: Santiago, Juan <Santiago.Juan@epa.gov>; Long, Pam <Long.Pam@epa.gov>
Subject: Materials for the Idsal Biogenic meeting on Monday 11/18

Attached are materials for the Anne Idsal meeting scheduled for Monday titled **Treatment of biogenic CO2 emissions at stationary sources**. Please let me know if you have any questions.

Thank you,

Yvonne W. Johnson
Special Assistant to the Director
Air Quality Policy Division
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
919-541-3921
johnson.yvonne@epa.gov

Message

From: Long, Pam [Long.Pam@epa.gov]
Sent: 11/1/2019 2:21:06 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: RE: Meeting Request for Anne Idsal Subject: Treatment of Biogenic CO2 emissions at stationary sources

Thanks. I wanted to double check.

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Friday, November 01, 2019 10:17 AM
To: Long, Pam <Long.Pam@epa.gov>
Subject: FW: Meeting Request for Anne Idsal Subject: Treatment of Biogenic CO2 emissions at stationary sources

Here is the meeting request that Lana forwarded.

From: Massey, Lana <massey.lana@epa.gov>
Sent: Wednesday, October 30, 2019 3:37 PM
To: McKinney, Voronina <mckinney.voronina@epa.gov>; Smith, Darcie <Smith.Darcie@epa.gov>
Cc: Baker, Sarah <baker.sarah@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>
Subject: Meeting Request for Anne Idsal Subject: Treatment of Biogenic CO2 emissions at stationary sources

Nina/Darcie,

See attached meeting request for Anne Idsal. Subject: Treatment of Biogenic CO2 emissions at stationary sources.
Let me know if there are further questions.

Thanks, Lana

Lana Massey
Air Quality Policy Division
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
(919) 541-5366

Message

From: Long, Pam [Long.Pam@epa.gov]
Sent: 11/1/2019 2:13:05 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: FW: Anne Idsal Briefing Request

Do you know if Lana sent this forward yesterday?

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Wednesday, October 30, 2019 3:02 PM
To: Massey, Lana <massey.lana@epa.gov>
Cc: Johnson, Yvonne W <Johnson.Yvonnew@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Kornylak, Vera S. <Kornylak.Vera@epa.gov>; Vetter, Cheryl <Vetter.Cheryl@epa.gov>
Subject: Anne Idsal Briefing Request

Lana-

Attached is a briefing request for Anne Idsal to provide her a status update on where we are with the biogenic CO2 rulemaking. Please let me know if there is any information missing. Thanks.
Sarah

Sarah Baker
Environmental Protection Specialist
Air Quality Policy Division, Operating Permits Group
U.S. EPA, Office of Air Quality Planning and Standards
(919) 541-4846 / baker.sarah@epa.gov

<Idsal Meeting Request 10-30-2019.docx>

Message

From: Elman, Barry [Elman.Barry@epa.gov]
Sent: 11/1/2019 1:06:48 PM
To: Baker, Sarah [baker.sarah@epa.gov]
Subject: Re: PSD Biomass Proposal (919-541-4557)

Ex. 5 Deliberative Process (DP)

Thanks,

Barry

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, October 31, 2019 10:41 PM
To: Elman, Barry <Elman.Barry@epa.gov>
Subject: RE: PSD Biomass Proposal (919-541-4557)

Barry-

Ex. 5 Deliberative Process (DP)

Sarah

From: Elman, Barry <Elman.Barry@epa.gov>
Sent: Thursday, October 31, 2019 10:37 AM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: PSD Biomass Proposal (919-541-4557)

Sounds good. Thanks.

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Thursday, October 31, 2019 9:56 AM
To: Elman, Barry <Elman.Barry@epa.gov>
Subject: RE: PSD Biomass Proposal (919-541-4557)

Hi Barry-

Ex. 5 Deliberative Process (DP)

Sarah

From: Elman, Barry <Elman.Barry@epa.gov>
Sent: Wednesday, October 30, 2019 5:37 PM
To: Baker, Sarah <baker.sarah@epa.gov>
Subject: RE: PSD Biomass Proposal (919-541-4557)

Thanks, Sarah. I will attend the meeting with AF&PA on Friday.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Let's talk.

Barry

From: Baker, Sarah <baker.sarah@epa.gov>
Sent: Wednesday, October 30, 2019 3:29 PM
To: Elman, Barry <Elman.Barry@epa.gov>
Subject: FW: PSD Biomass Proposal (919-541-4557)

Barry-

In the event you want to attend, AF&PA, AWC, and NAFO will be coming in to DC on Friday to present the attached documents.